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Precision SHOOTING



a magazine for Shooters by Shooters

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COVER PHOTO

Public Relations news release:—Safety has taken a new turn at the Baton Rouge Refinery of Humble Oil & Refining Company, the nation's largest oil refinery. Three employees, all members of the refinery's Safety Association and its Gun Club, are teaching the children of employees about firearms and how to handle them properly.

In the photo, the adult instructors coach three members of the Gun Club's Junior Rifle Team. From left, the instructors are P. C. Armistead, C. C. Lloyd and W. L. Terrell, Gun Club president. Youngsters are Lee Terrell, left, and Neil Lloyd, sons of Messrs. Terrell and Lloyd, and Kathleen LeRay.

Since the program started last Fall, the scores of junior team members from prone position have improved from the low 60's to the low 90's. The first lessons the children learn deal with safety, and these principles are emphasized throughout the program. The Junior Rifle Team already has earned several National Rifle Association awards. It has been allowed to use the Army Reserve-National Guard Armory facilities at Baton Rouge on Saturday afternoons. Age limits for the classes are 11 to 15.

(Editor's comment: Getting youngsters started right is a most important part of the over-all shooting program. Senior shooters are recognizing this need and are doing something about it at an increasing rate throughout the country. The photo indicates that these youngsters have received very sound basic instruction in the prone position as well as safety—note that all bolts are open.)

IT'S PURELY HIS HOBBY

Competing in bench rest matches during the summer months and experimenting with ideas which he thinks may in some way improve bench rest equipment for himself and others, is Paul Gottschall's hobby and his relaxation from the demands and cares of his business. He does not make anything in the shooting line to sell to anyone.

Pual is not secretive. When he turns up anything in his experimenting that he believes may be helpful in any way, he not only tells his friends at the matches about it but takes the time to write it up for publication in Precision Shooting and supplies illustrations which he believes will permit anyone interested to make a similar item, or have it made for them locally. He does not have available time to answer a lot of personal letters.

Paul's brainstorms are not always pure gold, but when one does prove a dud after extended trial, he admits it publicly as fast as he can. But most of the items he has written about have been real helps to benchrest shooters.

The man is human and no doubt likes to know that his efforts are appreciated. This bit is simply one friend's plea not to scare him off from making future reports for fear of inviting a flood of letters demanding answers, and which he does not have time to attend.

P. H. T.

THE LOWER FORTY CLUB

By Cecil L. McCoy

Grand Junction, Colo.

For many years have I read and listened to the sad sacks bemoaning the rules and regulations of the shooting game in general and the N. B. R. S. A. in particular. I for one am getting just a little fed up with their sad song. If they put in as much time promoting the shooting game as they do bitching, the shooting game would be advanced with the speed of a jet plane. Instead of trying to bring the shooting game down to their level it would help a great deal if they would join in and help out a wee bit. If they can't compete there is always golf and checkers. I wonder if they have rules there also! I wonder who would win if we all used the same rifle and ammo. I have been approached in this manner on at least one occasion at our club.

As the title of this gripe sheet suggests, I am a charter member of the Lower Forty Club. My sights have been set for the Upper Twenty Club for a good many years now, and I am not much closer than when I started. However, I don't think the rules should be changed just so I can win a trinket of some kind to show the wife (no law says I have to tell it is a fourth class one, I guess).

I don't like throwing rocks, as it is rather hard on my poor old arm. If we had a good retriever, perhaps we could all use the same rock. Now who do you suppose would win the marbles?

I am under the impression that we have at least four classes of shoots and that should be enough for most anybody who really wants to shoot. I wonder if it would help if we were to spend as much time perfecting our equipment and bench technique as we do shouting about the other fellow's smokepole and the kind of rests he is using.

We can't all be winners but we can all be shooters and have a whale of a good time burning powder together. If we keep our eyes and ears open we may some day learn enough to be a winner when our lucky day comes along. In any case it is a wonderful sport and we meet some fine people, so let's forget our self-styled rule making and all get together for a good old Bangfest.

If this letter has stepped on some tender toes I can always take pleasure in the fact that I am located a long way from the firing line and near to the hills. I can always head for the reservation when things get too tough. It has always been an honor to belong to such a fine organization (NBRSA), and I would like to say in passing that our officers and members, no less, are doing a fine job. They are worthy of our support, so let's lend a hand.

I should like at this time to say we have a top notch editor for our magazine. God bless this hard working and long suffering man. In my opinion he is doing a wonderful job and is putting out a rag that is 192 percent above anything I have ever had the pleasure of reading. I wonder if he could use a little help in getting out the mag we all enjoy so much. (He sure can—Ed.) If this letter is of any help he may print it. If not, he can always consign it to file 13, and we will still be friends.

(Editor's comment: While the foregoing is aimed particularly at the bench rest competitive program, organization and provides the advantages of any low power

CARL P. BROWNING

The smallbore game suffered a great loss when one of its most ardent devotees, Carl P. Browning, succumbed to the fatal effects of leukemia and Hodgkin's disease on December 19th, just four days before his 55th birthday.

He was well-known particularly in the West, where he was a member of the West Coast Rifle Club in San Diego before moving to Salem, Oregon. Utah State Champion in 1950 and Washington State Champion in 1955, Carl's love of shooting was equalled only by his ability to place near the top in every tournament in which he competed. And, he never attended a tournament nor a deer hunt without his wife, Dorothy.

In writing me the sad news, Dorothy said that if she could write as I do, she would like to tell about all of the wonderful people whom they met through shooting and what a rewarding experience it was for them. She has expressed it much better than I could have done.

The 4-C Rifle Club, which Carl was instrumental in organizing four miles from his Salem home, now has over 400 members. A tree has been planted on the range as a memorial to him.

Dorothy lives at 753 Concord Street, N. E., Salem, Oregon, and would appreciate seeing or hearing from their friends.

Betty Summerall Duncan

W. MARTIN PHELEN

W. Martin Phelen, one of the leading smallbore rifle competitors in the Chicago area and who has several times won the Illinois Smallbore Rifle State Championship, passed away recently at the age of 52.

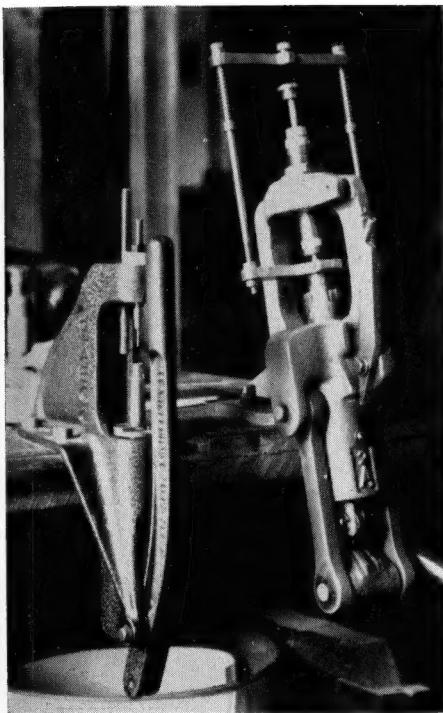
members, it can, as Mr. McCoy suggests, also be applied in general to all competitive shooting programs. The "gripers" are not confined to the shooting games, they are universal. Perhaps, as a vociferous minority, they serve a useful and needed function—that of keeping the majority stirred up and striving for improvement instead of becoming complacent and stagnating. For all of that, they can be right irritating at times.)

THE REDFIELD 3X TO 9X VARIABLE POWER SCOPE

The Redfield Gunsight Company has licked the problem of the cross-hairs or other aiming device being magnified in size, as well as the target image, when the power is increased in a variable power scope sight. The cross-hairs, or other reticle types, remain unchanged throughout the full range of magnification power from 3X to 9X.

I personally do not agree with one descriptive comparison in the Redfield catalog in which it states; "the Redfield 3X-9X provides instead a reticle which appears smaller as power is increased and thicker as power is decreased." That I know is not intended to be misleading. Maybe that is as it seems to some users, but to me it seems like putting the hind-end in front.

The scope I have been testing has the cross-hair reticle (which is the type of reticle I like in either a hunting or target scope). In my opinion and for my use, this cross-hair seems just about ideal in dimension for a hunting scope. It is sharp and bold enough for quick pick-up and fast moving onto target for quick shots at short range with the lower power magnification. This combined with the wide field of view



A corner of the editor's combination desk-workbench. The RCBS 2A press is set up for swaging .30 caliber bullets in the Bahler Die Shop dies. The SAEKO Precision Loading Press (at left) is set up for resizing and decapping the .308 Winchester case. Note the decapping-expander plug stem sticking down from the STUBBY DIE. Only the neck resizing is done within the die body. The long screw in back of the die is the "stop screw" which contacts the wide shell holder to adjust the ram travel for the operation being done, and is locked in place by a setscrew on the right side of the press head. The shell holders are removable and interchangeable, and is held in place by a hardened setscrew. For repriming the shell holder is removed, the priming punch dropped into place in the ram head and the shell holder replaced. One set of STUBBY DIES will handle all cartridges of the same caliber (bullet diameter) the only extras needed being shell holders to fit the various cartridge case heads.

hunting scope for short range game shooting. When the scope is adjusted to its highest power (9X) the cross-hairs remain looking exactly the same as they did at the lowest power, to me at least, BUT, since the target image has been magnified three times in size the cross-hairs cover a much smaller area of the target image.

With the scope set at 9X magnification, with reasonably good shooting light conditions, I find no trouble aiming in the X-ring (1 inch diameter) of the 100 yard decimal smallbore rifle target at 100 yards. With the scope set on 4X, the cross-hairs and the area of the 100 yard bullseye they cover appears to me to be the same as with the 4X Bear Cub scope I have used for several years, and the field of view seems approximately the same (as it should).

All the test shooting I have done to date with the 3X-9X Variable has been at known ranges on paper targets. I anticipate that precise aim can be taken on relatively small indistinct targets at the longer ranges in the field, but I'll have to report on that after I've had an opportunity to give it considerable trial.

The full range of power adjustment is obtained with a one-half turn of the conventional and conveniently located adjust-

IN CALIFORNIA . . .

Tune up your deer rifle, your bench rest rifle, your target rifle and yourself at the

HUTTON RIFLE RANCH . . .

We supplement our trajectory tests which include drop, muzzle velocity, pressure and accuracy reports with the new Powley Computer, Pressure Charts and String Charts. Because of the three computer and chart developments by Homer S. Powley, and now available for the first time, the rifleman may take a cartridge he has never seen before, calculate the most efficient load, determine velocity, breech pressure and the path of the bullet all the way to 500 yards. We regard this as the greatest step upward the handloader-rifleman has had since B. E. Hodgdon brought out his slow-burning powders ten years ago. In fact this has not been possible since the invention of gunpowder. We do not sell powders but we do carry the Powley Computer for Handloaders for \$3.50 each, prepaid. This gives you muzzle velocity but not the exact pressure. We will be glad to make all of the computer and chart calculations for you—load, velocity, pressure, trajectory—for \$10.00. Send your empty case with bullet—unloaded. Mark seating depth faintly on bullet with a file. State exact barrel length. Strong bolt actions or single shots only.

In addition we are able to confirm these findings with the Avtron Chronograph and actual range test with surveyed distance. Write about this further service to Hutton Rifle Ranch, 1043 Greenleaf Canyon, Topanga, California.

The Hutton Rifle Ranch is

Official Range of GUNS and AMMO magazine
20 Covered Bench Rests with Spotting Scopes
Midway between Highway 101 and 101-A, in
Topanga Canyon, near Santa Monica, Calif.

ing ring on the scope tube. Each power is plainly marked (3-4-5 etc.) and an index mark is provided for positioning convenience but fractional powers may be used if desirable. I have shot several 10 shot groups, changing the scope power setting between each shot, both progressively and selectively, and there has not been the least evidence of any change in point of impact center.

The elevation and windage adjustments are of the internal type and the same as in the older Bear Cub scopes except that the adjustment dial graduation marks are for one-half minute-of-angle (approximate) instead of the one-minute-of-angle in the older fixed power scopes. There are no "clicks" but adjustments of one-quarter minute-of-angle or less can be quite closely estimated between the dial graduation marks. With the zero mark on the moving adjustment dial and the plainly marked index point on the stationary rim, sight adjustments for different loads or ranges can be recorded and returned to reliably when desired. As with the older Bear Cub scopes, the graduated adjusting dial plate can be set to zero without disturbing the sighting adjustment.

I have not had any extensive experience with other variable power scopes, mainly because I have not liked the changeable reticle feature or the illusion gimmicks used to try to correct it. Therefore I am unable to make any first-hand comparisons. However, I am convinced that the Redfield 3X-9X Variable is the variable power scope that I have been waiting for and I am very much pleased with it. Others may find faults in it but I think that will be more a matter of personal preferences than of real quality and reliability.

P. H. T.

HIGH VELOCITY TRAJECTORIES
String chart displays all curves, 2700-5000, 500 yds. Professional-size— $\frac{1}{2}$ actual drops.
"Poor Man's Chronograph"—determines ballistic coefficient. Read-out easy. Confirms shooting tests. \$18.00 p. p. Descrip. free.
Pressure by Chronograph Charts \$10.00 p. p.
Powley Computer for Handloaders \$3.50 p. p.

MARIAN POWLEY
17623 Winslow Rd., Cleveland 20, Ohio

NEW LYMAN MOULDS

The Lyman Gun Sight Corp. announces that moulds are available for casting three new bullet designs.

Lyman bullet #35863 is a 148 grain bullet, a double ender Wadcutter designed primarily for the new Smith & Wesson Model 52 auto-loading target pistol.

Lyman bullet #31141 is a 170 grain .30 caliber flat nose gascheck bullet designed as a hunting bullet for .30 caliber rifles. The bullet is designed for loading to velocities equivalent to the regular 30/30 jacketed bullet game loads. The flat point makes the bullet suitable for use in tubular magazines.

Lyman Cast Round Ball .385 diameter for muzzle loader rifles. This ball properly patched can be used in most .40 caliber muzzle loading rifles such as the Pennsylvania and Kentucky types.

These new designs are said to be available for immediate delivery in single, double and four cavity mould types at regular mould prices.

NEW FROM FEDERAL

Now available from Federal Cartridge Corporation at MONARK are 38 Special Wadcutter-loaded with 148 grain lubricated lead bullet for match shooting.

Also available are HI-POWER .22 cal. rimfire shot cartridges, for pest control and MO-SKEETO trap shooting.

MAINE STATE OUTDOOR PISTOL CHAMPIONSHIPS

NRA Registered Tournament

June 2 and 3, 1962 at Blue Hill, Maine

A NEW PROGRAM THIS YEAR—2700 point three gun aggregate
Awards in all classes. Ample camping space for tents and trailers.

Programs: George Scott, Scott's Twin Acres, Northport, Maine, (via Lincolnville)

COMPUTING PRESSURE

By John Hollinger
3825 Easton NE
Canton, Ohio

In light of the ad for Homer Powley's Computer For Handloaders in P. S., some of your readers may be interested in some results arrived at by the use of another of Mr. Powley's useful devices. I have reference here to the charts Homer supplies for the purpose of calculating pressures based on data supplied by chronograph tests.

My ballistic pendulum was constructed for the purpose of giving me reliable velocity figures for the loads I use in a number of wildcat rifles (as well as some standard ones) but until the advent of the aforementioned charts I had despaired of ever knowing what kind of pressures I was getting.

Briefly the set of pressure computation information consists of an information or instruction sheet and three charts, "A," "B" and "C." Chart "A" is used to determine the volume, in grains weight of water, of the space occupied by the expanding powder gases at the instant the base of the bullet leaves the muzzle. Charts "B" and "C" supply the other variables necessary to arrive at the pressure delivered by a given load within a given weapon. I am deliberately not going into detail on the manipulation of the charts but would be glad to supply details to any interested shooters (I'm sure Mr. Powley would be delighted to hear from interested parties also).

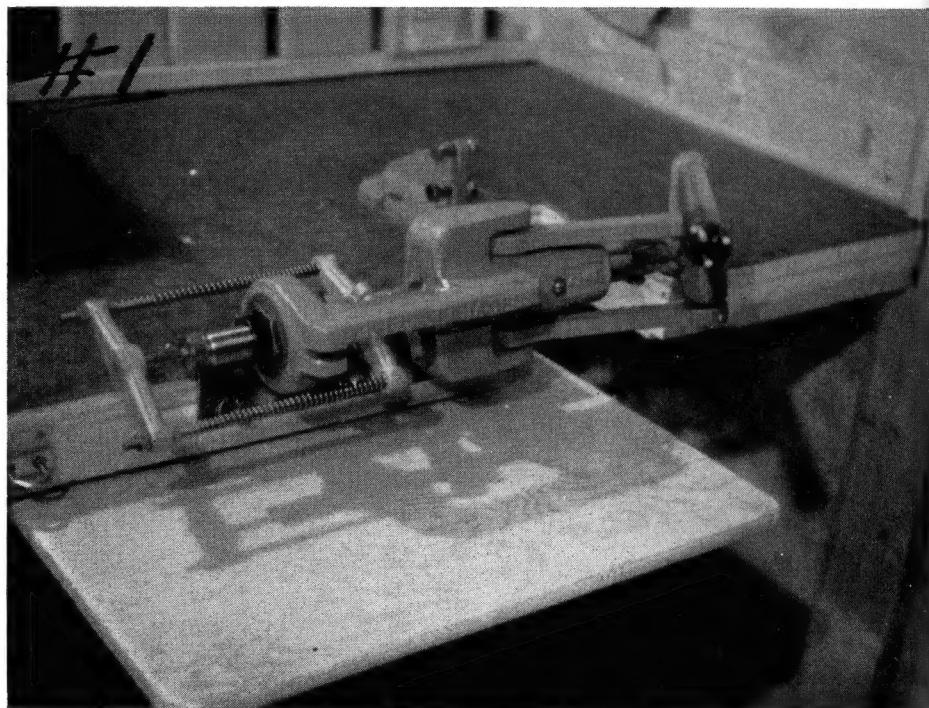
To the figures:

Cartridge 219 Improved Zipper. Rifle Sharps Borchardt, 26 $\frac{3}{4}$ inch barrel, 14" twist, 6 groove, .224" groove diameter. Gunsmith, Gottschall. With Winchester Zipper brass, 50 gr. Sierra bullet, Fed. 210 primer and charge of 32.5 grs. 3031 powder, the 25' instrumental velocity was 3887 f.p.s. and the computed pressure 52,262 ft. lbs. With case, bullet and primer same as the foregoing but with charge of 34.5 grs. 4320, the velocity was 3819 f.p.s. and the computed pressure 50,900 ft. lbs.

Cartridge 22/250. Rifle FN Bench action, 28" Douglas barrel, 8 groove, .2239" groove diameter, 14" twist, gunsmith, VanPatten. With Winchester 250/3000 brass, CCI 200 primer, 55 gr. Sierra semi-point bullet, 43 grs. 4831 powder, velocity was 3813 f.p.s. and computed pressure 52,200 ft. lbs.

Cartridge 25/06 (Ackley version). 03/A3 action with 25" Douglas barrel, 6 groove, .2568" groove diameter, 10" twist, Gunsmith, VanPatten. With Remington '06 brass, Federal 210 primer, 87 gr. Sierra bullet with 51.8 grs. 4676 powder, the velocity was 3574 f.p.s. and the computed pressure 49,700 ft. lbs. Same as foregoing except charge of 63.5 grs. 4831 powder, velocity was 3757 f.p.s. and computed pressure 55,750 ft. lbs. For same components except for load of 60 grs. 4350 powder, velocity was 3731 f.p.s. and computed pressure 55,500 ft. lbs. With Rem. '06 brass, CCI 200 primer and 87 gr. Hornady bullet, with 55 grs. 4831 powder, velocity was 3283 f.p.s. and computed pressure 41,250 ft. lbs. With same case and primer as the foregoing but with 100 gr. Sierra bullet and charge of 60 grs. 4831 powder, velocity was 3434 f.p.s. and computed pressure 51,600 ft. lbs.

Cartridge 260 AAR. Rifle, Model 38 Arisaka, 29.5" issue barrel, 4 groove, .267" groove diameter (.257" bore), 8 $\frac{1}{2}$ inch twist, Gunsmith, VanPatten. With LC '54, '06 brass, CCI 200 primer, 100 gr. Sierra bullet with charge of 56 grs. 4831 powder, velocity was 3267 f.p.s. and computed pressure 46,184 ft. lbs. With case and primer same as foregoing, with 140 gr.



Sierra BT bullet and charge of 53 grs. 4831 powder, velocity was 3055 f.p.s. and computed pressure 54,100 ft. lbs.

Cartridge 270 WCF. Rifle, Model 70 with 25.5" Douglas barrel, 12" twist, 6 groove, Gunsmith, VanPatten. With Winchester 270 brass, CCI 200 primer, 150 gr. Sierra BT bullet and charge of 58.5 grs. 4831 powder, velocity was 3017 f.p.s. and computed pressure 52,750 ft. lbs. With Remington 270 brass, Federal 210 primer, 130 gr. Hornady bullet and charge of 59.5 grs. 4831 powder, velocity was 3194 f.p.s. and computed pressure 52,600 ft. lbs.

Cartridge 308 Winchester. Rifle, Win. Model 88 action, 28" Douglas barrel, 6 groove, 10" twist, .3085" groove diameter, Gunsmith, VanPatten. With Win. 308 brass, CCI 200 primer, 180 gr. Hornady bullet and charge of 40 grs. 3031 data powder, velocity was 2496 f.p.s. and computed pressure 44,400 ft. lbs. Same case, primer and bullet with charge of 52 grs. 4831 powder, velocity was 2598 f.p.s. and computed pressure 49,100 ft. lbs. Same case, primer and bullet with charge of 43.4 grs. 3031 data powder, velocity was 2607 f.p.s. and computed pressure 50,200 ft. lbs.

Cartridge '30/06. Rifle, Winchester Model 54, 24" standard barrel, 10" twist, 4 groove. With TW 42 brass, Federal 210 primer, 180 gr. Sierra BT bullet and charge of 60 grs. 4831, velocity was 2717 f.p.s. and computed pressure 49,000 ft. lbs. With LC 52 brass, CCI 200 primers, 110 gr. Sierra HP bullet and charge of 57.4 grs. 4676 powder, velocity was 3344 f.p.s. and computed pressure 47,400 ft. lbs. With Super-X brass, CCI 200 primer, 200 gr. Speer bullet and charge of 60 grs. 4831 powder, velocity was 2747 f.p.s. and computed pressure 57,200 ft. lbs.

I have never seen any pressure information in print on any wildcat and of course there are good reasons why it has never appeared. Certainly no other shooter would be safe in assuming that a similar rifle he might own would produce the same results with the same loads due to variances in chamber dimensions, bore tolerances, powder lots and the countless other variables gun nuts are happily plagued with. However, these data do point up the value of Mr. Powley's charts to shooters (or ranges) owning chronographs. I have learned a great deal already and you can be

sure that I have stopped using those loads which appear (from pressure computation) to be unsafe even though many of them, in fact most of them, gave none of the usual danger signs when fired. That is to say, there were no primer leaks, head expansion, or sticking cases. I have definitely proven to my own satisfaction that I can tell next to nothing about pressure by observing fired primers and that in itself was worth the \$10.00 Mr. Powley's charts cost me.

I am not satisfied that all of the data above are completely reliable since many of the velocity readings were taken some time ago and I was not measuring case capacities, nor did I always fire a large enough number of rounds to be sure my sample is representative. However, I'm having fun and learning a great deal. I feel constrained to add one final note. I am in no position at present to do any testing on a commercial basis nor do I anticipate doing so, much as I would like to.

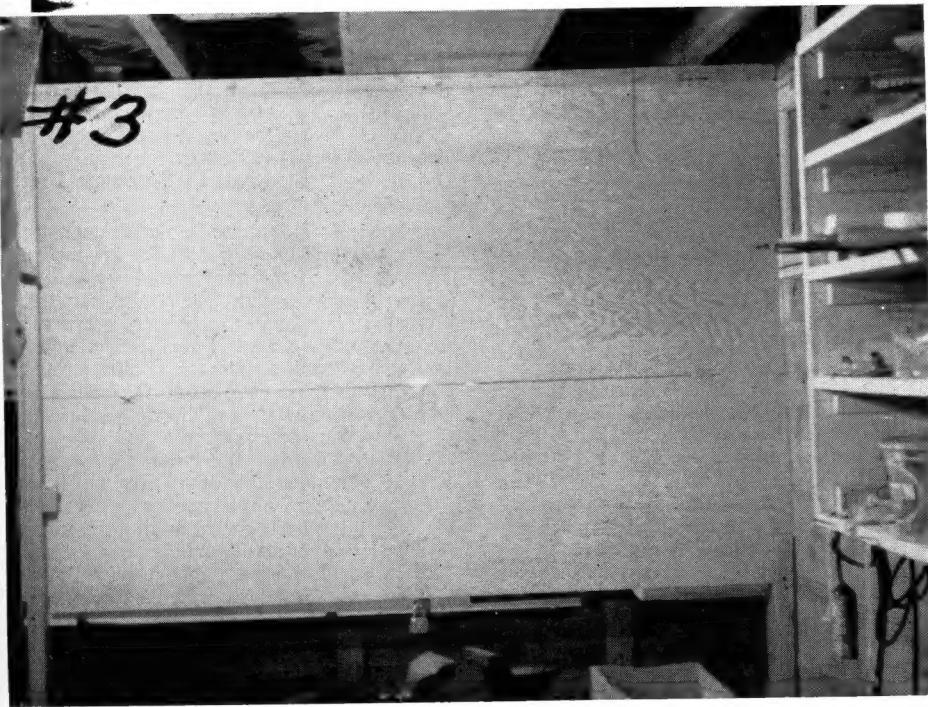
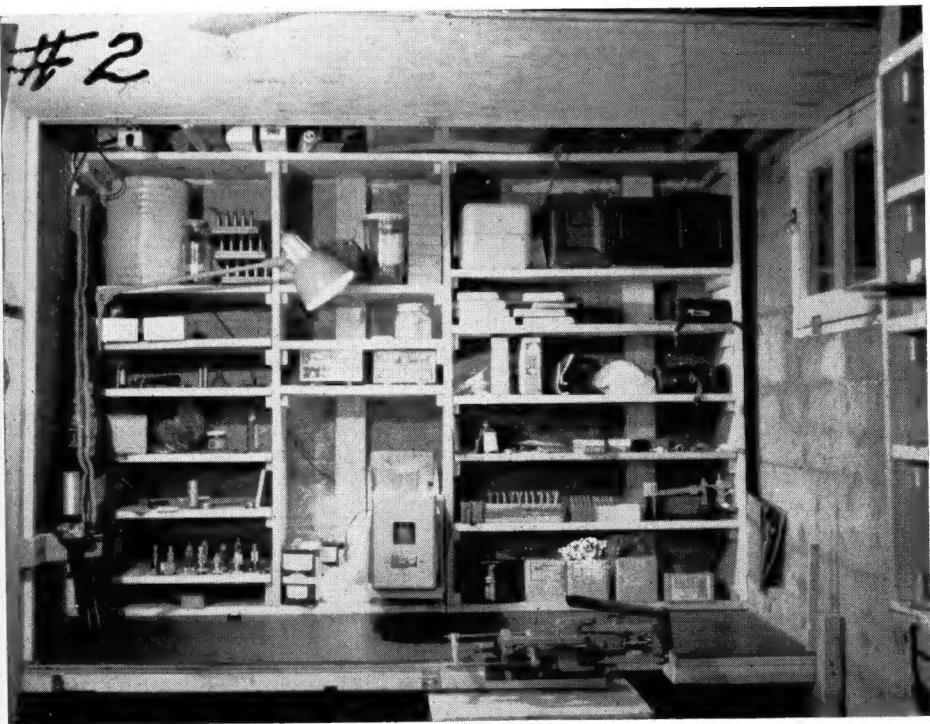
It must be obvious that I am fascinated with 4831 powder and in case someone (a skeptic) decides to check my story I will admit that it was a little difficult to get some of these powder charges into the cases; however, an 11 inch drop tube will suffice in most cases. Would be glad to hear from any interested shooters.

CNE SHOOTER'S LOADING BENCH

By Dan Balam

For bullet making I have taken my RCBS press and mounted it on its side with handle on top (see photo #1). With the die laying flat you do not have lead from your bleed holes falling in around ram cup which comes with the B&A automatic ejector for the RCBS press. It is much faster because you can reach for next core or jacket while other hand is operating the handle, which I cut off 3 inches. The shelf under the press swings in and out from under the bench to lay box on to catch bullets or cores as they are ejected from the dies.

Photo #2 shows the 6 foot bench I use in my basement for reloading and bullet making. I have two boys, 2 and 3 $\frac{1}{2}$ years old, who are tempted to climb up on the bench. I also have the rest of my shop and a 12 foot work bench to the right and in front of the loading bench. When working with power saw I get sawdust and dust all over the loading equipment. As shown in photo #3, I can close a two piece folding door down from the ceiling and completely



close up the loading bench, keeping kids and dust out. Also, I can leave an operation "as is," lock up and come back and everything is as I left it.

I cut hole into bench (at right rear of press in photo) and mounted press in so handle of press is flush with front edge of bench and door can be closed without taking off press, but I have to remove the press when it is mounted on its side for bullet making in order to close the door.

The electrical instrument, at back of bench in center of photo #2, is a Gunderson Electronic powder measure. You can throw a 53 grain charge of 4831 in 10 seconds and will always be within 6/10 grain variation, or you can slow down to 20 seconds and throw 21 grains of 4198 and it will never be more than $\frac{1}{2}$ of 1/10 of a grain over thrown and never light.

It operates from an electronic vibration which shakes powder down a channel into a funnel. It will throw 50 grains of a 51 grain charge with a heavy vibration and the last 1 grain with a light vibration.

The reason I mention this is because when corresponding with Ray Biebler in buying my dies I asked if any benchrest shooters used these and he did not know what I was talking about. Perhaps others are not informed about this instrument.

EXPERIMENTAL BALLISTICS ASSOCIATES TEST REPORT

By James F. Rudolph
7601 Dunston Street
Springfield, Virginia

This report is intended to set forth results of some experimental tests using the 220 Swift.

The 220 Swift velocity figures are Instrumental Velocities taken at 10 feet from the muzzle using a decade counter chronograph with the screens placed 15 feet apart. (20 foot screen spacing is preferred, however the winter range will not accommodate 20 foot spacing.)

This test includes:

1. Factory Loads.
2. Hand Loads.

3. Powder—dried, moistened and old powder.

4. Seven different primers.

5. Powder position in case.

The velocity figures for "factory loads" are not the significant part of the report, rather they will furnish a reference or comparison. This is also true for the "hand loads."

The high and low velocity figures are shown in each test as well as the "extreme variation" since shooters often ask me for the high and low. The velocity figures in the tabulations represent the instrumental velocity (MV) in feet per second (fps).

RIFLES: Two Winchester M70 factory rifles with 26 inch Sporter weight barrels.

CONDITIONS: Temperature varied from 69° to 72° F. Relative humidity remained between 25% and 30%.

M70 Serial No. 85688

FACTORY LOAD—Winchester Super Speed, 48 grain bullet.

1. Lot k3 118 22 (20 rounds)

Average MV	4110 fps
Highest MV	4178 fps
Lowest MV	4065 fps
Ext. Var.	113 fps
2. Lot Q 1135 (10 rounds); the remaining 10 rounds fired in rifle No. 312 906

Average MV	4021 fps
Highest MV	4065 fps
Lowest MV	4000 fps
Ext. Var.	65 fps

HAND LOADS using cases from factory lot k3 118 22. Winchester-Western one pound canisters.

8½-120 primers, Lot SGC 2L117. "Average" for 10 rounds. All powder from fresh

1. 37 grs. 3031, Speer 52 gr. OP bullet.

Average MV	3916 fps
Highest MV	3958 fps
Lowest MV	3856 fps
Ext. Var.	102 fps
2. 37 grs. 3031, Sierra 53 gr. OP bullet.

Average MV	3896 fps
Highest MV	3937 fps
Lowest MV	3856 fps
Ext. Var.	81 fps
3. 38 grs. 4064, Sierra 55 gr. SP bullet.

Average MV	3817 fps
Highest MV	3856 fps
Lowest MV	3788 fps
Ext. Var.	68 fps
4. 39 grs. 4064, Sierra 55 gr. SP bullet.

Average MV	3896 fps
Highest MV	3927 fps
Lowest MV	3866 fps
Ext. Var.	61 fps
5. 37 grs. 4064, Speer 52 gr. OP bullet.

Average MV	3667 fps
Highest MV	3713 fps
Lowest MV	3641 fps
Ext. Var.	72 fps
6. 38 grs. 4064, Speer 52 gr. OP bullet.

Average MV	3788 fps
Highest MV	3817 fps
Lowest MV	3759 fps
Ext. Var.	58 fps
7. 38 grs. 4064, Sierra 53 gr. OP bullet.

Average MV	3817 fps
Highest MV	3846 fps
Lowest MV	3778 fps
Ext. Var.	68 fps

POWDER TEST—effect of moisture. W-W 8½-120 primers. (10 rounds)

1. Dry powder: From a new pound canister of 4064 powder, 450 grains was weighed out and placed in a large uncovered container and left 2 weeks at a temperature of 69° to 72° F; relative humidity remained below 30%. At the end of 2 weeks the powder was re-weighed and found to weigh 448.7 grains, a loss of 1.3 grains. This "dried" powder was then loaded:

38 grs. 4064, Sierra 53 gr. OP bullets.

Average MV 3827 fps

Highest MV 3856 fps

(Continued on Page Six)

Experimental Ballistics

(Continued from Page Five)

Lowest MV 3807 fps
Ext. Var. 49 fps

(Note the little difference in the average MV with this load as compared with load 7 under Hand Loads.)

2. Moistened Powder: From the same new pound canister of 4064 powder, 450 grains was weighed out and placed in a large container and sealed with a tight lid. Before sealing, a sponge saturated with water was placed inside the container on a saucer. The saucer was supported at the top of the container and the powder never came in direct contact with the sponge. The container was then set aside for 2 weeks at a temperature ranging from 72° to 85° F. The powder was weighed after 2 weeks, loaded and fired within 2 hours after opening. The moistened powder weighed 458.2 grains; a gain of 8.2 grains. This powder was loaded:

38 grs. of "moistened" 4064, Sierra 53 gr. OP bullets.

Average MV 3386 fps
Highest MV 3409 fps
Lowest MV 3348 fps
Ext. Var. 61 fps

(Note the large drop in MV.)

3. Old Lot of 4064: This canister of powder was first opened in 1951 and used here only to find out what velocity readings it would give.

38 grs. of old 4064, Sierra 53 gr. OP bullets.

Average MV 3713 fps
Highest MV 3731 fps
Lowest MV 3686 fps
Ext. Var. 45 fps

Note: Since velocity figures were not taken using this canister of powder when it was new it is not possible to draw any conclusions.

PRIMER TEST: Using cases from factory lot Q 1135. All powder from fresh one pound canister of 4064. All primers purchased fresh from Sporting Goods Store for this test except where noted. (Average of 10 rounds) Load—38 grs 4064, Sierra 53 gr. OP bullets.

1. Winchester-Western 8½-120 primer, lot SGC 2L117 (purchased fresh for these tests.)

Average MV 3769 fps
Highest MV 3807 fps
Lowest MV 3750 fps
Ext. Var. 57 fps

Note: This is the same load as listed under "hand loads" except these cases are from Lot Q 1135.

2. Winchester 120 primer, Lot ADF02L244—These primers are more than 10 years old.

Average MV 3788 fps
Highest MV 3807 fps
Lowest MV 3750 fps
Ext. Var. 57 fps

3. Western 8½ primer, Lot 67RN31

—Again these primers are more than 10 years old.

Average MV 3695 fps
Highest MV 3731 fps
Lowest MV 3659 fps
Ext. Var. 72 fps

4. Remington 9½ primer, Lot 168

5061

Average MV 3751 fps
Highest MV 3778 fps
Lowest MV 3704 fps
Ext. Var. 74 fps

5. Federal No. 210 primer, Lot

A1/06/197

Average MV 3807 fps
Highest MV 3846 fps
Lowest MV 3778 fps
Ext. Var. 68 fps

6. CCI No. 200 primer, Lot 1-615

Average MV 3750 fps

Highest MV 3778 fps

Lowest MV 3731 fps

Ext. Var. 47 fps

7. CCI Mag. No. 250 primer, Lot 15-25

Average MV 3817 fps

Highest MV 3836 fps

Lowest MV 3788 fps

Ext. Var. 48 fps

POWDER POSITION IN CASE:

1st. Primer — W-W 8½-120. Cases — Load—38 grs 4064, 53 gr. Sierra OP bullet from factory Lot Q 1135. (Average of 10 rounds)

1. Powder positioned at rear of the case and then carefully placed in the chamber. (This is the same load fired in the primer test using 8½-120 primers.)

Average MV 3769 fps

Highest MV 3807 fps

Lowest MV 3750 fps

Ext. Var. 57 fps

2. Powder positioned the full length of case by rolling the case on a board.

Average MV 3788 fps

Highest MV 3846 fps

Lowest MV 3741 fps

Ext. Var. 105 fps

3. Powder positioned at the front of the case.

Average MV 3769 fps

Highest MV 3797 fps

Lowest MV 3731 fps

Ext. Var. 66 fps

Note: The powder position test was made using only one load—38 grs. 4064. Had the powder charge been smaller I would expect a greater variation in velocities between the three positions.

RIFLE M70 Serial No. 312 906

FACTORY LOAD—Winchester Super Speed, 48 gr. bullet.

1. Lot Q 1135 (10 rounds)

Average MV 4021 fps

Highest MV 4087 fps

Lowest MV 3958 fps

Ext. Var. 129 fps

HAND LOADS—Using cases from factory Lot Q 1135, W-W 8½-120 primer, 10 rounds each load.

1. 38 grs. 4064, Speer 52 gr. OP bullet.

Average MV 3778 fps

Highest MV 3846 fps

Lowest MV 3750 fps

Ext. Var. 96 fps

2. 38 grs. 4064, Sierra 53 gr. OP bullet.

Average MV 3797 fps

Highest MV 3856 fps

Lowest MV 3759 fps

Ext. Var. 97 fps

Note: These same loads were fired in M70 serial No. 85688 and you can quickly run a comparison between these two Winchester rifles; both of which had Winchester 26 inch Sporter weight barrels.

(Editor's thoughts and impressions: In studying this report some points that seem to stand out are: It would appear that the adage "Keep your powder dry" is just as sound today as it ever was. It does appear that position of powder in the case does affect velocity uniformity and this is important in competitive target shooting. This and other tests that have been reported indicate that primers will retain their stability and usefulness for long periods when stored under just reasonably favorable conditions.

From the accuracy standpoint, it is my opinion that uniformity of velocity is more important than a particular average velocity, and the Extreme Variation figure is the best indication of the accuracy potential of a load.

This report does permit comparison of two rifles of the same make, of two lots of

some of the same component combinations in each. Other rifles of the same or other cartridge cases of the same make, with makes, cartridge cases of other lots from the same manufacturer and/or from other manufacturers, and different lots of the same load components could and probably would give somewhat different velocity figures. However, the foregoing test report is extensive enough to permit some good comparisons.)

ABOUT THE POWLEY COMPUTER

By Edward M. Yard

The years will prove replete with wildcats of any size or type or description that one may desire. These have languished or lingered as their merits, or our fancies, have required. Some have glowed and glittered in the bright light of the well told fanciful claims for them. Some, even, have lived up to their promise, but of most we know little except the guesses of a few users and the thin thread of fact in some scattered tests. There was little else to expect.

The day when the means of assessing the merits of a new or proposed cartridge design or alteration were lacking is about over. In fact, it is done. Two of the things needed to take wildcats out of the guessing game are now readily available to any serious reloader experimenter. These are accurate chronographs, and ballistic computers. The Avtron, available commercially, the Yard counter chronograph circuit, and others fill the need for really accurate timing devices within reach of shooters. Recently the second need has been filled by the Powley Computer For Handloaders, reported in February Precision Shooting.

Powley's calculator is a slide rule type device, measuring 4" by 9¼". Its purpose is to compute an approximate maximum powder charge weight for ANY cartridge, and then to select the proper powder to use with ANY bullet in the particular caliber. In a second operation, the velocity that may be expected from the prescribed load is estimated. Just how this is done will be explained anon.

This should be the answer to expectant experimenters' fondest dreams. Here in the form of a handy, pocket size, easy to use, and quick little gizmo, without so much as stirring from his armchair, is solid useful data about the performance of his latest brain wave. He does need to know one independent fact (and instructions on the computer tell him how to get that easily) which is Case Capacity. In this instance it is defined as the weight in grains of the water the case will hold to the base of the bullet. Expressed in another way, it is the actual powder space of the loaded round, determined by weighing the water that fills the same space. This is a simple, easy, and eminently accurate way to arrive at this factor. Should the dreamland loader's child be strictly cloud stuff, then he must estimate this value, and he better darn well know that much about what he has in mind (?).

This sounds so good that the happy handloader will want to know how good it is. The answer is: pretty good. We knew that it had been built up from data on standard cartridges and a few quick checks of these confirms that the expected answers will be indicated. So we threw it a few curves. Having chronographed some real wildcats extensively, we ran these through. One, the .22 Sabre, had shown 3160 F.p.s. with a charge of 16.5 gr. 4227 powder when chronographed. Powley's Computer, using case capacity of 20.5 grains, calls for 16.4 grains, and in a 24" barrel, predicts 3140 F.p.s. The actual powder indication for (Continued on Page Sixteen)

TOURNAMENT CIRCUIT

62-YEAR-OLD HERB HOLLISTER TAMES WILDCATS

By Betty Summerall Duncan

The "man of the hour" in the smallbore game is Herb Hollister, well-known Boulder, Colorado collector of rifle titles. His deliberate, consistent attack on the X-ring "roped in" championship honors for taming the pack of high-spirited Western Wildcats which roared into Phoenix for the fourth annual Western Wildcats Mid-Winter Smallbore Rifle Tournament March 1-4. Hollister's spectacular 6390-504X smashed the hopes of big names from 18 states and one Canadian province who came out of their winter hibernation to travel through snow and sleet for a four-day shooting holiday in the Arizona sun. The list of 144 competitors reads like a page from Who's Who in the Smallbore World.

George J. Stidworthy, Jr., Prescott, Arizona, Executive Officer of the Western Wildcats Rifle Club who master-minded this possible 6400-point tournament, pushed Hollister all the way and finished second in the championship aggregate 4 points behind with 6386-506X. Third spot went to our 1960 Olympic silver medal-winner, G/Sgt. James E. Hill, USMC, who came through with a 6382-498X over former NRA President George Whittington's 6382-449X. Warrant Officer Emmett Duncan, USMC, winner of the President's Cup in the 1961 National High Power matches, finished fifth with 6380-480X.

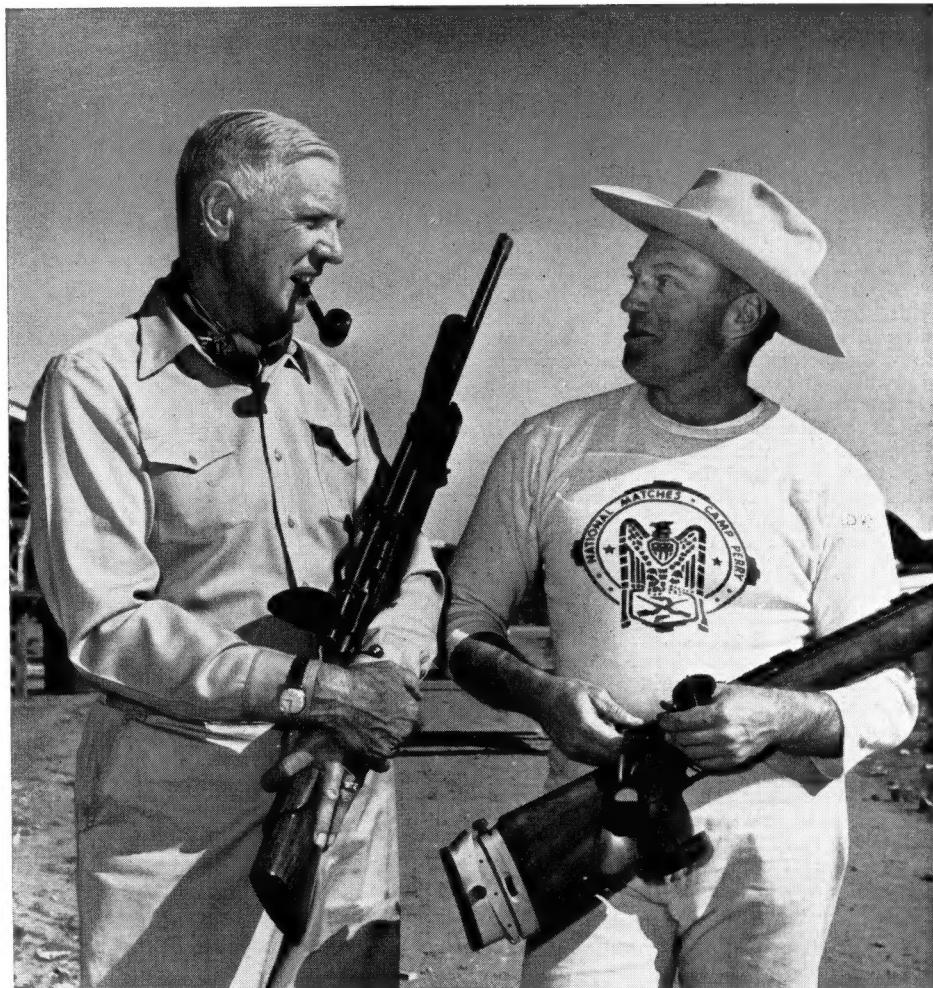
The popular Wildcat President and NRA Smallbore Rifle Committeeman, Henry Benson, of Salmon, Idaho, was the undisputed headliner during the first two days of competition. His 1600-108X with metallic sights, in far from perfect conditions, is proof in itself that age is no barrier as Benson is 63. This was a feat unequalled by the "youngsters" throughout two metallic sight aggregates, as Benson drew on his years of wind-doping experience to clean the slate. His closest competitor in the first metallic sight aggregate was Hill with 1598-135X, followed by Stidworthy, 1597-119X, and Hollister, 1597-114X.

Individual match winners:

Dewar Course—Clarence Cope,	
Albuquerque, N. M.	400-32X
100 yards—Hill	400-35X
50-meters—Hollister	400-29X
50-yards—Stidworthy	400-35X

Emmett Duncan, from Marine MTU San Diego, determined to redeem himself after his opening day's crossfiring episodes, settled down for a 400-37X Dewar any win, 400-38X 50-yard victory, Creedmooring Oscar Morris, Hobbs, N. M., and clinched the first Any Sight Aggregate with the ranking 1600-139X. Hollister was runner-up with 1600-137X and Capt. Frank McAlister, USAF, Glendale, Ariz., came through with 1600-119X. The remaining any sight matches went to Carl Herriman, Orange, Calif., for his 400-34X at 100-yards, and Hill, who Creedmoored his teammate Duncan with a 400-37X score at 50-meters.

Always near the top but failing to win an individual match, Benson complacently and cautiously held his own to annex the "Beachcombers' Aggregate," consisting of the aggregates for the first two days of firing. His excellent 3199-244X amid tricky mirage and desert wind currents, merits a special plaudit. Jim Hill, always consistent, came in second with 3197-270X, Hollister was in third place with 3197-251X; Stidworthy, fourth with 3196-247X; and Cope, fifth, 3194-252X.



Winners at the Western Wildcats Mid-Winter Smallbore Rifle Tournament. (left) Herb Hollister, Grand Aggregate winner with a score of 6390-504X and runner-up, George Stidworthy, who tallied 6386-506X. Photo by Glenn Taylor.

The report on this tournament would be essentially incomplete if the "behind the scenes" act of fine sportsmanship on the part of Cpl. Robert L. Goller, USMC, were not revealed. After demolishing his new automobile when he hit a sandy shoulder en route to Phoenix, which incident branded him with a pair of black eyes, Goller demonstrated the scope of his concentrative powers by firing a 400-32X to win the 50-meter metallic. It was not until the completion of the first match on the second day that Goller became aware that he had been firing an international type rifle with set trigger. One of his teammates had inadvertently handed him the wrong rifle as both his international rifle and prone rifle are identical. Without hesitation, Goller took steps to disqualify himself for the five fired matches and the metallic sight aggregate, even though no one would have ever known the difference. A salute to the Marine Corps for producing riflemen of this caliber!

Emmett Duncan casually remarked on the opening day that he was no threat, but the conclusion of the third day's matches emphatically refuted that statement and the newspapers proclaimed that Duncan and Hill had the situation well under control. With Duncan again at the head of the aggregate bulletin, this time with metallic sights, 1596-115X, and Hill rating headlines as winner of the Metallic Sight Championship, 3193-255X, it was obvious that the Marines had landed.

Putting administrative thoughts from his mind during intermittent 20-minute periods, Stidworthy tenaciously clung to second place in both Saturday's metallic sight aggregate, 1595-130X, and the Metallic Sight Championship with 3192-249X.

Hill was third in Saturday's aggregate, 1595-120X, with Hollister just 1 X behind. Hollister placed third in the Metallic Sight Championship, 3192-233X, followed by William J. Grater, Camarillo, Calif., 3189-237X and Benson, 3189-206X.

Individual metallic sight match winners:

Dewar Course—Stidworthy	400-35X
100-yards—David Boyd, USMC	400-22X
50-meters—Hill	399-33X
50-yards—William Atkinson, Prescott, Ariz.	400-34X

Tales have been told about rough conditions, but they did not pertain to an opening match at 8:00 a. m. when the elements are conceded to be fairly docile. Going into this final day, either Hill or Hollister could have broken the National Record of 6392-488X by going clean. But, these were hardly 1600 conditions. At one point, mirage and wind appeared to be from 9 o'clock, while a backer blew down the range from 3 o'clock. With desert winds racing through the range in spurts and from more than one direction simultaneously, conditions perhaps varied on the various firing points. One well-known veteran was caught with a 7 on the 100-yard stage of the Dewar. Sighting in with an 8-ring hold at 9 o'clock could easily achieve an 8 at 3 on the record. A certain 2 o'clock wind took a shot out at 5 o'clock. As Hollister remarked afterward, "It is a tragedy for a fine shooter like Hill to lose everything in one stage." Duncan also fell by the wayside in the 100-yard stage, but he was in good company. It does seem that a certain amount of luck was at stake here, but regardless of what was behind it, the following deserve admiration: Hollister for

(Continued on Page Eight)

Tournament Circuit

(Continued from Page Seven)

winning the match with 399-30X, high expert, William Baumann, Jr., Ft. Carson, Colo., 399-27X, and those Amarillo, Texas boys, Whittington and Tom Roberson, who were second and third masters respectively with 399-25X.

After their initial outburst, the angry winds began to simmer down for the second match, and thereafter remained gentle and tamed as the Wildcats. Recovering from his self-deprecation in the Dewar, brought on by disgust for failing to supply himself with sufficient sighting ammo and resultant rise in blood pressure, Duncan was clean for the remainder of the day. He won the 100-yd. any with 400X33 over Hollister's 400X31 and Whittington's 400-30X. Hollister bounced back in the meter for a 400-39X win over Grater, 400-36X. Whittington claimed the final match of this 4-day endurance contest with his 400-38X at 50 yds., an X ahead of Oscar Morris, genial sec.-treas. of the Wildcats, Grater, and Robert Boydston, San Gabriel, Calif.

Hollister kept his scores sizzling as the desert sun throughout it all and did not falter until—his final shot. That fateful 9 erased all hopes for a new National Record's being established during this tournament. The new champion would have been 10Xs over the existing Any Sight Aggregate record of 3199-261X had he not slackened his pace.

Whittington, national record-holder for the 160 shot metallic sight aggregate, proved his versatility by coming out ahead in this final rugged any sight aggregate with an excellent 1599-123X.

2nd—Hollister 1598-134X
3rd—William Schlitzkus 1596-102X
Springfield, Oregon
4th—Stidworthy 1595-129X
5th—Inez Sargent 1595-117X

Any Sight Championship Winners

Hollister 3198-271X
Whittington 3198-248X
Stidworthy 3194-257X
Inez Sargent 3194-238X
Schlitzkus 3194-210X

The Wildcat Championship, an aggregate of scores for the final two days, had a slightly larger entry than the other major aggregates. Leaders were:

Hollister 3193-253X
Stidworthy 3190-259X
Duncan 3189-234X
Whittington 3189-216X
Grater 3187-246X

Expert Class

Wesley Kimbrel, Albuquerque, N. M. 3175-215X
Gerald Marotta, Los Angeles 3175-211X

SS Class
Jack Lesley, Glendale, Ariz. 3158-177X
Leon Linscott, Williams AFB 3154-162X

MK Class

Michael Feldes, Williams AFB, Ariz. 3147-142X
John D. Haggard, Biggs AFB, Tex. 3142-150X

Unclassified

Gary Olson, Torrance, Calif. 3151-151X
Jerald Gossman, Walker AFB, N. M. 3148-158X

Coming out on top in the Prone Team Fund Match, an aggregate of the four 100-yard matches, was international shooter Hill with a score of 1596-115X. Second was Hollister, 1596-111X, Duncan third with 1596-106X, Creedmooring Whittington, followed by Oliver Lauderman, Dayton, Ohio, 1594-96X, who Creedmoored Boyd.

Rounding out the winners' circle in the

overall Championship Aggregate were:
6th place—Grater 6379-505X
7th place—Boyd, USMC 6378-459X
8th place—Benson 6377-460X
9th place—Chester Beasley, Mandan, North Dakota 6373-470X

Mrs. Inez Sargent, Houston, Texas, always rough competition (in a ladylike manner, of course), overshadowed all of the feminine contenders and a wide majority of the men including her husband, Raymond, as her score of 6373-436X was good for 10th place.

Miss Gail Cauley, 18-year-old junior college student from Norwalk, Calif., walked off with High Junior honors for her 6347-383X.

Expert Class Winners:

Kimbrel 6355-403X
Richard A. Gibson, Williams AFB 6336-365X
Gerald Howard, Gardena, Calif. 6335-338X
Herbert Simpson, Ft. Carson, Colo. 6335-338X

Sharpshooter Class:

Lesley 6319-326X
Douglas Morrison, Prescott, Ariz. 6289-296X
Linscott 6286-288X

Marksman Class:

Haggard 6309-327X
Pat Evans, Colorado Springs, Colo. 6288-300X
Garry Beardmore, Williams AFB 6279-279X

Unclassified:

Gossman 6291-314X
William Sheldon, Walker AFB, N. M. 6225-263X

Proving to be a successful experiment was the award system designed by Stidworthy giving the competitors the prerogative of specifying in advance their choice of merchandise, trophies or cash. It was interesting to note that more than twice as many desired merchandise certificates as trophies, and only 11 requested cash awards.

An interesting feature was the "Big Brother" 2-man team match, limited to 100 entries, which teamed the winner of Thursday's metallic sight agg. with the shooter who had the lowest score, the second high with the second low, etc. This provided valuable experience for the newer shooters and an opportunity for all to become better acquainted. The only possible in this any sight Dewar was that of Capt. Leonard Brewster, USAF, Williams AFB, of Apache Junior Rifle Team fame, and Grant Sanborn, Twin Falls, Idaho, an excellent 800-45X. Second team was Boyd and Clyde Morgan, Vandenberg AFB, Calif. with 798-59X, and the team of Kazua Oda, Upland, Calif., and Donald Bliss, Albuquerque, N. M., came in third with 798-46X.

In the conventional 2-man team match at 100-yds. any sights, the Los Angeles Rifle and Revolver Club team of Richard Burkhardt, Hermosa Beach, Calif., and Grater came out on top with 798-59X. The Cedar Rapids, Iowa, team composed of Bill Hankins and John Hughes took second spot with 798-44X. The Sargent husband and wife team, representing the Bayou Rifles, finished third with 797-62X. Although this was not specifically a club team match, the top places happened to fall to teams which have had experience shooting together.

Certainly one of the most worthwhile and memorable highlights of the four-days' activities was the Seminar on Smallbore Shooting conducted by G/Sgt. James E. Hill, USMC. Through the courtesy of the U. S. Marine Marksmanship Training Unit,

MCRD, San Diego, those assembled were privileged to learn in detail the scientific compilations derived from extensive research, including information and ideas acquired from European shooters by our Marine international shooters. With the assistance of one of his teammates, Hill demonstrated variations of the prone position, explaining the best features and drawbacks of each. He emphasized that complete concentration is essential for obtaining top scores. He further demonstrated his mastery of a simulated podium, on a subject with which he is so thoroughly familiar, to be as great as his mastery of the mysteries of smallbore shooting. The seminar as well as the question and answer session which followed, contained a wealth of valuable information for both old-timer and newcomer alike. Complying with a request, a new type off-hand position was explained and assumed, with caution directed at the back pains involved at the outset but which would ultimately pay dividends. Nowhere else, to our knowledge, has such a comprehensive approach been offered to acquaint shooters with universal procedures employed in their particular field of shooting. It is little wonder that Hill has developed into a champion of Olympic caliber. Our special appreciation to the Marine Corps for changing the orders which have directed Hill to an island in the Pacific. This country needs him in active competition if we are to make a respectable showing against the Russians.

Two banquets were enjoyed by competitors and their families, but the most outstanding was the one held on Saturday night in conjunction with the meeting of the Western Wildcats Rifle Club. Honored guests were NRA President, Mr. John M. Schooley, and NRA Executive Director, Mr. Louis F. Lucas, who brought greetings to the Wildcats from the NRA. Mr. Robert M. Modisette, Jr., Chairman of the NRA Smallbore Rifle Committee, also a tournament competitor, offered the cooperation of his committee for the best interests of competitive shooters. The report of Mr. George Whittington, a member of the NRA Finance Committee, announcing that funds in the amount of \$15,000 have been appropriated for the purpose of sending a prone smallbore rifle team abroad, was enthusiastically received. In addition to re-electing the present slate of officers, previously named with the exception of vice-president Walter H. Womack, three important resolutions were passed by this club, which is composed of most of the outstanding smallbore riflemen west of the Mississippi. The Western Wildcats Rifle Club has gone on record as opposing any effort to combine the prone aggregates with the position aggregates to create a single National Championship. The separate championships should be maintained intact. It was resolved that the National Prone Championship should consist of a 6400 aggregate. Further, that in order to return the Regional Championships to their former stature, trips to the National Matches be awarded to the various class winners as was the custom in previous years.

Now for the equipment story. Hollister ran rampant over the Wildcats with the same Anschuetz combination which has carried him to previous victories. It includes such features as a Unertl tube with Iris disc, 50 yd. and 100 yd. Redfield Int. front sights, Lyman 20X scope and Western Mark III ammunition. Stidworthy did justice to his Johnson-37 with Redfield International sights and is unique in that his Unertl scope preference is a 12-power. He used Winchester EZXIS. As for Hill—this is not the first time that he and Hollister have experienced a close finish with



Winners at Idaho State Junior Gallery Rifle Championship at Twin Falls, Idaho.

their Anschuetz rifles. Hill's free-rifle is equipped with Anschuetz metallic sights, his scope is a Lyman 20X. He fired Western Mark III. Benson's Womack-barreled-37 with Kenyon sleeved-action and Kenyon trigger is also a familiar rifle. His scope is a Bausch & Lomb, and his ammunition, Peters. Duncan fired a Hart-40X, Redfield Int. sights, Lyman 15X scope, with an old lot of Mark III. Grater also shot a Hart barrel, but with 52-C action, Kenyon trigger, Bell front sight, Redfield X-tube and Int. receiver sight, Lyman 20X scope, Grater stock, with Mark III. Four of the new R. L. Sargent square actions were in evidence, one on Inez' Hart barrel, on which she uses a Canjar trigger, Freeland front sights, Redfield Int. rear sight, Freeland stock, Lyman 20X scope, with Mark III ammunition. Whittington started out with his Wright-Allen action, Wright-Allen trigger, on a Johnson barrel, and finished up with the Sargent-actioned Hart, also with Wright-Allen trigger, for which he made the stock.

A "well done" to all of those who had a part in making this 6400-point experiment so successful.

IDAHO STATE JUNIOR RIFLE CHAMPIONSHIP

Even though near blizzard conditions prevailed in all surrounding areas, 59 competitors all but filled a 60-competitor limit of the Idaho State Junior Gallery Rifle Championship at Twin Falls, Idaho, on March 11th. Approximately 20 juniors, including the defending girl's champion, and their club leaders fought icy roads and fog from Salt Lake City, Utah, to attend the tournament. When the Grand Aggregate was figured, two new champions were crowned and the defending champions were only able to place second in their respective divisions.

John Pitts of Filer, Idaho, fired 569 X 600 to place as Boy's champion. The Girl's Champion honors went to Kathy Ferguson of Kaysville, Utah, for her score of 563. Jeanie Hansen of Ogden, Utah, placed as second girl (556) and Joe Gillespie of the local club won the second boy spot (562). Kathy Herrett, another local shooter, was third place girl (543), while Jna Chadwell of Layton, Utah, won the third place boy award (559).

The prone match winner, Stephen Dick of Twin Falls, fired 100-9x. Craig Tucker

of Fairfield, Idaho, had 7 X's with the only possible fired in the sitting match. Kathy Ferguson outshot her brother John 196 to 193 to claim the kneeling match trophy. John Pitts won the standing match with a 182.

Junior classifications were used for this tournament and the sharpshooter class was divided at the 4th bar stage. This classification system has proved to be very successful.

Equipment varied from the Winchester 75 fired by the High Boy to custom built rifles on Win. 52 and Rem. 37 actions. Miss Ferguson fired a 52 with Redfield with X-Tube and International front sights. Both regular and match ammunition of several manufacturers were fired in this tournament.

Barbara Sanborn

NEW YORK CITY

Sixty-six shooters fired in the Metropolitan Rifle League individual and two-man team tournament, fired prone at 100 yards, indoors.

Sam Tekulsky won the individual match with a 400-35x. Sam Burkhalter had 40-33 and L. Moore 400-34.

J. Holle and F. Boyd won the two man team match with the only possible posted—800-67x. Sam Burkhalter and Walter Tomsen were second with 799-67. Irwin and Sam Tekulsky were third with 799-65.

Sam Tekulsky won the individual aggregate with 799-69x, followed by L. Moore 799-67, Sam Burkhalter 799-66 and J. Holle 799-64.

MODESTO, CALIFORNIA

The 4th Annual Modesto Gallery Rifle Championship tournament was fired on the Modesto Rifle Club range, March 10th and 11th. There were 84 competitors, which is about a 60% increase over last year's registration.

Bob Wood of Ukiah, Calif., chalked up another victory, winning this year's match with an aggregate 792 X 800. He fired 200-20x prone, 200-17x sitting, 199 kneeling and 193 offhand.

The aggregate Top-Ten were: Wood 792, Ciris Petersen 790, Vic Zimin 789, Ken Cummins 784, Irvin Brown 783, David Hopping and Duane Jenner 782, Fred Forster 781, Bob Stokes 777 and Dennis Schmidt 776.

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The Ukiah Rifle Club team won the team championship, Ken Cummins scoring 199, Bob Wood 197, Rod Palmer 195 and Irvin Brown 194 for team total of 785. Betty Landberg with a 196 led the Willows Rifle Club team to runner-up spot with total of 774 and the Modesto Rifle Club team were third with 771, Duane Jenner pacing his team-mates with his 197 score.

The Modesto Rifle Club is enlarging its club room by 460 sq. ft. They are now finishing the interior and getting ready for their Palma Match (smallbore rifle) on May 20th.

Duane Jenner

WHITING, IOWA

Fifty-three competed in the NRA Gallery Rifle Sectional Tournament at Whiting, Iowa, on March 23-24-25.

Gary Anderson of Axtell, Nebraska, until recently of the Army Advanced Marksmanship Unit and the present Smallbore Position National Champion, won the Sectional Aggregate with a 789 score. He was 3rd prone with 200-30x, 3rd sitting with the high ranking 199, 3rd kneeling with 199 and won the standing match with a 192.

Chris Westergaard of Whiting, now in his 60th year of rifle competition, won the prone match with a 200-48x score and beat his son August by 6 X's. His grandsons Lee and James fired in this prone match as unclassified competitors, Lee being runner-up in the class with a 199 and James 4th with a 196. Chris was 5th in the sitting match with a 199 and 17th overall in the aggregate with his 762.

(Continued on Page Seventeen)

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Box 749
Custer, South Dakota

NORTHWEST REGION

Dr. Rod Janson
606 West Galer
Seattle 99, Washington

SOUTHWEST REGION

John B. Sweany
187-A Silverado Trail
Calistoga, California

Secretary-Treasurer
Bernice E. McMullen
603 West Line St.
Minerva, Ohio

NBRSA MEMBERSHIP DUES:

Individual annual dues \$5.00 (includes magazine subscription for membership term). Associate member (wife or husband, son or daughter under 18 years of age, of member in good standing—no magazine) \$2.50. Life membership, \$75.00. Annual club affiliation fee \$10.00.

PRESIDENT'S CORNER

I am pleased to report to the members of the N. B. R. S. A. that your Board of Directors have voted on and passed the following resolutions:

1) That the President shall hire a statistician and one official scorer to be in charge of scoring, statistics and issuing of National Championship Match reports. A standard form for reporting National Championships is to be developed and match reports are to be completed and mailed promptly. Wages and expenses of these two people will be paid from \$1.00 of each day's registration fee of \$5.00 and the National organization will pay the balance as a service to the shooters. This applies to both National Championship Matches.

A manual of procedure of registering, scoring, posting and reporting National Championship Matches is being developed and will be submitted to the directors at the annual meeting for further action.

2) The National Championship Matches for Unrestricted Rifles (in 1962 at Tulsa, Oklahoma) will be held for the two classes as defined in our rule book. This means that there will be a choice for you as to the class you wish to shoot in. All prize

money will be separated in the two classes according to the competitor's choice of registration. Each class will have a separate set of scores and aggregates. HOWEVER, the National Champion, the 100 yard champion, the 200 yard champion and the Top-Twenty awards will be made to the best aggregates REGARDLESS OF WHICH CLASS THEY WERE FIRED IN.

The foregoing information is a repetition of that given last month and is intentional in order that there may be no misunderstanding or confusion regarding the program conditions and procedures which will be in effect for the 1962 National Championship Matches at Tulsa, Oklahoma.

This rule will give all shooters a chance of equal competition through the match and by making the awards as described above, all will be able to compete for the top awards. The future may show that we should have a Champion for each class and a complete set of trophies, but we are a growing organization and we should be positive about the direction of growth before major changes are made.

These changes should increase our National Match attendance as we are giving the shooters a choice, a chance for equal competition, and plan to improve the scoring and reporting of Championship Match results. Your Directors are doing their very best to give the members the best shooting program possible and your attendance at the matches will be their reward.

Until May,

Bob Hart

NATIONAL CHAMPIONSHIP DATES MOVED AHEAD

The dates for the National Championship Matches for Unrestricted Rifles at Tulsa, Oklahoma, have been moved ahead one day. The matches for the National Championship course will be fired on Wednesday, September 26, Thursday, 27th, Friday, 28th and Saturday, September 29th.

This change has been made as a convenience for those who live within one day's travel time from Tulsa and will permit them to drive home on Sunday and be ready for work Monday morning.

The dates for the National Varmint and Sporter Rifle Championships at Wapwallopen, Pennsylvania, are Friday, August 10th, Saturday, August 11th and Sunday, August 12th. The complete championship course for one class of rifles will be fired on one day.

1962 BENCH REST MATCHES EASTERN REGION UNRESTRICTED RIFLES

Augusta, Ohio: June 2-3, June 30-July 1, July 28 (night), August 18-19, September 15-16. Reed's Run Rifle Range, P. O. Box 66, Augusta, Ohio.

Wapwallopen, Pa.: May 26-27; July 21-22. Council Cup Rifle Range, Robert W. Hart, 322 Montgomery St., Nescopeck, Pa.

Easton, Ohio: June 16-17 (State Championship). Chippewa Rifle Club, Nelson Berger, Sec'y, R. D. 1, Box 192, Marshallville, Ohio.

Southboro, Mass.: June 17; August 5; October 14. Southboro Rod & Gun Club, J. W. Baldwin, P. O. Box 402, Westboro, Mass.

Plainfield, N. H.: June 3 and Sept. 16; Plainfield Rifle Club, Leslie Stone, Sec'y, Plainfield, N. H.

Lewistown, Pa.: July 7-8. East End Blue Rock & Sportsmen's Club, P. J. Aurand, Milroy, Pa.

Johnstown, N. Y.: September 1-2; Eastern Region Championship. Pine Tree Rifle Club, Edward J. Sweeney, 501 N. Market St., Johnstown, N. Y.

VARMINT & SPORTER RIFLES

Augusta, Ohio: May 5-6. Reed's Run Rifle Range, P. O. Box 66, Augusta, Ohio.

Fassett, Pa.: May 18; June 9-10 (Pa. State Championship); July 4; July 29. South Creek Rod & Gun Club, Gerald Arnold, Sec'y, R. D. #2, Gillett, Pa.

Dryden, N. Y.: May 20; June 23-24 (N. Y. State Championship); September 23. Dryden Fish & Game Club, Edward Shilen, Dryden, N. Y.

Easton, Ohio: July 14-15 (Eastern Region Championship). Chippewa Rifle Club, Nelson Berger, Sec'y, R. D. 1, Box 192, Marshallville, Ohio.

Wapwallopen, Pa.: August 10-11-12 NATIONAL CHAMPIONSHIPS. Council Cup Rifle Range, Robert W. Hart, 332 Montgomery St., Nescopeck, Pa.

SOUTHWEST REGION

Richmond, Calif.: July 7-8 (California State Championship); Richmond Rod & Gun Club; contact John B. Sweany, 187A Silverado Trail, Calistoga, Calif.

Yreka, Calif.: June 2-3 (Annual Memorial Day Shoot), Sept. 1-2 (West Coast Championship). Both shoots for Unrestricted Rifle, open and limited divisions, and both Varmint Classes. Yreka Rifle Club, contact Ray E. Jones, 508 Knapp St., Yreka, Calif.

Fresno, Calif.: Oct. 20-21 (Regional Championship); Fresno Rifle Club, Mrs. Henry C. Wright, Sec'y, 4663 East Olive, Fresno 2, Calif.

GULF COAST REGION

San Angelo, Texas: June 2 and 3; State Championship Unrestricted Rifle—Limited class; plus Varmint and Sporter classes.

August 25 and 26; State Championship Varmint and Sporter Classes. Texas Bench Rest Shooters Ass'n, Marie Spencer, Sec'y, P. O. Box 1243, San Angelo, Texas.

MID-CONTINENT REGION

Tulsa, Oklahoma: April 15, May 20, June 16, July 21, August 18, September 16 (all for unrestricted rifle, varmint and sporter classes—all NBRSA registered except Sept. 16). September 26, 27, 28 and 29 NATIONAL CHAMPIONSHIP, UNRESTRICTED CLASSES. Tulsa Bench Rest Rifle Club, R. G. Berry, Sec'y, Pawnee, Oklahoma.

MID-CONTINENT REGION

Hot Springs, Arkansas: June 30 (night), August 25 (night), October 14 (all matches for all classes). Hot Springs Gun Club, 101 Entrance St., Hot Springs, Arkansas.

Kansas City, Kansas: Varmint Rifle only, May 5. Unrestricted rifle only—June 2, August 4, October 20 (all are night matches). Mill Creek Rifle Club, L. F. Carden, Sec'y, 2211 North 44th St., Kansas City 4, Kansas.

Wichita, Kansas: May 12 (Varmint rifle—night), July 7 and 8 (Day and night, all classes, Kansas State Championship), September 2 (day—unrestricted rifle), October 6 (night—varmint and sporter). Wichita Bench Rest Rifle Club, Capt. Rick Hornbeck, 1640 Windsor, Wichita 18, Kansas.

MISSISSIPPI VALLEY REGION

St. Louis, Missouri: April 20 (sporter and light varmint, May 12 (heavy varmint—night match), June 3 (Open class, Unrestricted rifles), June 17 (heavy varmint and sporter), July 8 (Open class Unrestricted—Missouri State Championship), July 29 (sporter and light varmint), August 19 (Open class, Unrestricted Rifle), September 9 (heavy and light varmint), Bench Rest Rifle Club of St. Louis, Arthur M. Freund, Sec'y, 1038 Hornsby Avenue, St. Louis 15, Missouri.

NORTH-CENTRAL REGION

Buffalo, Wyoming: May 6 (Crow Shoot), July 14 and 15 (Mid-Summer Bench Rest Match), September 9 (Sporter Match). Buffalo Outdoor Rifle Club, Harold Platt, Sec'y, Box 721, Buffalo, Wyoming.

Custer, South Dakota: May 26-27, August 11-12 (registered shoots), June 3, July 22, September 9 (unregistered shoots). All for unrestricted bench rifles, heavy varmint and sporter classes. Black Hills Bench Rest Shooters Ass'n, Reg. McGiffin, President, 845 Rena Place, Rapid City, South Dakota.

NORTHWEST REGION

Renton, Washington: June 16-17, August 11-12 (registered shoots, special program), May 13, July 1 (heavy and light varmint and special "25 lb. rifle" classes). Seattle Precision Shooters Club, Roy E. Meister, Sec'y, 3938 Ashworth, Seattle 3, Washington.

MECHANICAL REST VS SAND-BAG

By Bernice McMullen

The pros and cons of precision mechanical rest vs sand-bag have been the subject of many bull-sessions by bench-rest shooters and would-be bench-rest shooters. The first paragraph in our NBRSA rule book for several years has stated: "The development and encouragement of extreme accuracy in rifles, ammunition, equipment and shooting methods." This should cover all mechanical rests and all sand-bags as equipment.

Illustrated herewith are two targets and backers offered in comparison of the two methods of shooting so much discussed. The target on the left was fired with a rifle weighing 42 pounds from precision built rests front and rear. Of this target the competitor states: "I got a very good condition and let go. I would fire as fast as I could and did not check my sight or anything between shots. I did not even pick up my cases until after I had finished the group." The backer to this group bears out this rapid-fire shooting.

The target on the right was fired with a rifle weighing just under 20 pounds with a very loose pliable rear sand-bag and rested on wood in front. Of this group the competitor states: "Conditions were good with slight wind-drifts in both directions. These drifts could be waited out fairly consistently until time was running out and the last shot had to be fired in the reverse condition." The backer to this group (bottom in photo) bears this out.

It would be hard to get two targets with closer measurements and yet fired with two entirely different set-ups and methods of shooting.

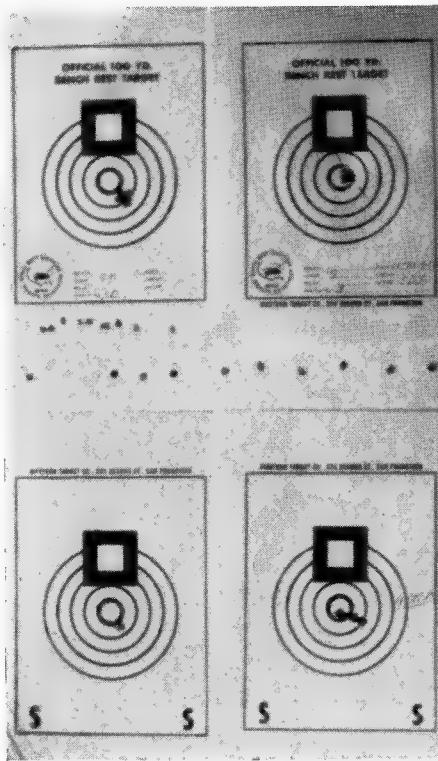
It might be well for those who have allowed the pros and cons on this subject to influence them up to now to stop and consider that the kind man up-stairs still holds sway over the elements which all bench-rest shooters must deal with, and Old Lady Luck is still the whimsical lady she has always been.

(The following has been added by the P. S. editor.)

The targets illustrated are the present recognized record targets for a 10-shot group fired at 100 yards range and were fired by the co-holders of this record, Cline Deere of Washington Court House, Ohio (left target) and Bernice McMullen of Minerva, Ohio.

National Champion Cline Deere fired his record target as one of the championship course in the National Championship Matches at Johnstown, New York, on September 1, 1962. NBRSA Secretary Bernice McMullen fired her record target in a registered shoot at Richmond, Indiana, on October 22, 1962. There is less than one one-thousandth of an inch difference in the official measurement of the targets, both being less than three-sixteenths (3/16) of an inch from center to center of widest shots. Both shooters are veteran bench-rest competitors and both are known as "shooters to beat" in order to win any bench-rest match they may be entered in.

Cline Deere's rifle was chambered for the .222 Remington cartridge. The action is a model '98 Mauser. The Hart barrel used is 28 inches long, 1.350 inch diameter with 14 inch twist. Action and barrel are held in the massive, flat-bottomed, square stock by a Sam Clark Universal Bedder (a solid clamp around the barrel just in front of the receiver ring which is through-bolted to the stock, leaving both barrel and action "free-floating"). Cline did his own gunsmithing and stocking. His mechanical rests provide for precise "return to battery" of the rifle after each shot and no sighting or realignment of the rifle is necessary in



firing an entire group. In other words, the rests constitute what is essentially a two-piece, portable machine-rest.

Bernice McMullen's rifle is chambered for the 222½ cartridge (a wildcat version mid-way between the regular 222 and 222 Magnum in powder capacity). The action is a Remington model 722 with Bellows sleeve. The Hart barrel is 28 inches long, 1½ inch in diameter with 14 inch twist. Gunsmithing is by Orren Bellows and the stock made by George McMullen.

Cline Deere's scope sight was a 25X Lyman and Bernice McMullen used a 24X Unertl scope.

The illustration is a composite arrangement made from photostats of the record targets and their moving backer targets. Cline Deere's backer has one near-doublet (4th and 5th from right) which is clearly discernible on the backer but may not be in the photo.

A 25 LB. RIFLE CLASS

By Dr. Rod Janson
Director Northwest Region NBRSA

A few days ago I received a letter from our President, Bob Hart, in which he suggested that I write up for publication the proposal that I sent him, in response to his article in the November P. S.

Bob stated in this article, and I quote him; "The problem is the use of Heavy Rifles and Precision Rests," end of quote. He further states; "I do not have the answer. Some suggestions are . . . Limit the weight of the Unrestricted Rifle . . . another suggestion is that the Clubs utilize the rules we now have by setting up a match program for the Unrestricted Rifle, Open Class, and for the Limited Class to provide an equal basis of competition. This has merit for it would not restrict the progress of accuracy." end quote.

I heartily endorse the above suggestion to create a Limited Class, to provide an equal basis of competition. I feel that the present Unrestricted Limited Class DOES NOT provide equal competition for the reason Bob states . . . The Unrestricted Class does have an advantage and it would be stupid to deny this . . . these are not his exact words, but words to this effect. The Limited Class is not equal among themselves, because of the vast difference be-

tween the unlimited type stocks and the extreme difference in the quality, cost and perfection of the front rests used in this Limited Open Class.

I have suggested that a new Limited Class could solve this problem. This New Class would NOT replace the existing Limited Class in any manner. It would require NO NEW RULES. It WILL provide equal competition with the heavy rifles.

The new 25 lb. Class would be fired under the present existing rules for the Varmint Rifles. A sand bag rest required, both front and rear, and a conventional stock, as described for the Heavy 13½ lb. Varmint Rifle. No limitation on action or barrel, providing the weight does not exceed 25 lbs. with scope.

A 25 lb. Class rifle is nearly twice the weight of the Heavy Varmint Rifle, in fact 11½ lbs. heavier. We have weighed a number of Heavy Conventional Rifles and found that even the big Webber action and the Bellows sleeved actions, with heavy barrels, would come within the 25 lb. limit with a Varmint stock. I call your attention to the cover photograph on the February issue of P. S., of Al Walter, NBRSA Director. This record Heavy Rifle weighs 24 lbs.

It is not necessary to build a new rifle for this class. One can easily provide himself with an extra conventional Varmint type stock and transfer his heavy barrel and action to this stock, to qualify for the 25 lb. class. The class should be fired at a separate time, so that the over-weight stocks, with slides and guides and precision rests, could be converted to the Varmint type stock and then everyone could compete on a truly equal basis.

It is my opinion that this 25 lb. class will quickly develop into the largest and most popular class in Benchrest Shooting. Think for a moment of the vast number of heavy conventional rifles, of yesteryears, which have been set aside because they were too heavy for the present Varmint classes and too light to compete in the Unrestricted Class. These guns would fit into this new class perfectly and perhaps bring some of the past BR shooters back to the BR game again. We have all seen the rapid interest in the Varmint Class shooting, this past year, and it is gaining momentum because in this class there is equal competition for all. The rifles, rests and equipment are more on an equal basis and it therefore attracts no shooters. The 25 lb. class would also attract both new and old shooters.

We are introducing this new class to our shooters, to be used in our unregistered shoots (in Seattle, Wash.). There has been a very enthusiastic response to this idea and I am hoping to have some of our shooters, who have given up the game, rethis new class is adopted by the NBRSA, turn and shoot with us again. Perhaps, if and we have had experience with the rifle for a season or two, it could be incorporated in the National Matches.

A WINTER BENCHREST MATCH

By R. W. Lathrop

While in Seattle on February 22nd, Washington's Birthday, I had the pleasure of attending a shoot put on by the Seattle Bench Rest Club. This was an informal match. The day was rather cold—it spit some snow—but conditions on the whole were good except that some shooters did some shivering and shaking because of the cold.

The shooting was all done at 200 yards
(Continued on Page Twelve)

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A Winter Benchrest Match

(Continued from Page Eleven)
and the matches were all 5-shots, for a five match aggregate. There were nine shooters who shot the unlimited class in which some of the rifles weighed as much as 74 pounds. The smallest group, .341", was shot by E. Frombach with his 74 pound gun. The five high MOA aggregates were:

Roy Norman .....	.365
Allen Bench .....	.389
E. Frombach .....	.411
Dr. Rod Janson .....	.544
Harry Masters .....	.608

In the 13½ pound class there were 16 shooters and some very good shooting turned in. Roy Meister shot the smallest group, .597", and Ed Hilton .642". However, Hilton's aggregate was by far the smallest for the match. The first five MOA aggregates were:

Ed Hilton .....	.385
Allen Bench .....	.513
Harry Masters .....	.516
E. Frombach .....	.566
Kathy Baker .....	.644

The last matches for the day were for the 10½ pound rifles. There were 13 entries but 4 shooters either did not finish or were disqualified. Amos Frombach easily won the match within MOA .500. Hilton shot the smallest group (.587") and came out second (.628) in the aggregate. Mr. Floyd turned in an aggregate .651 for third place.

Of the five shooters who fired all three classes of rifles the MOA Grand Aggregates are as follows:

E. Frombach .....	.585
Roy Norman .....	.661
D. Garden .....	.758
H. Masters .....	.777
Kathy Baker .....	.789

The shoot was enjoyed by all and much interest planted for coming matches.

SEASON OPENER AT WICHITA

The first unrestricted rifle match for the season was held April 7th at Wichita, Kansas. This was a night benchrest shoot and the good old Kansas wind was present, blowing 17 with gusts to 22 m.p.h. Along with the wind, rain started during the third

match at 200 yards. Although it was a tail wind for the most part, there was enough from the left to separate the men from the boys. A cozy fire, good food, hot coffee along with "Bud" Carden's latest stories, made this an enjoyable night shoot.

The aggregate winners were:

100 yards

Larry Engelbrecht	.4780
John Myer	.4930
Horace Powers	.5380

200 yards

Horace Powers	.5990
Bob Stultz	.6310
"Bud" Carden	.6310
Henry Barton	.6395

NMC Aggregate

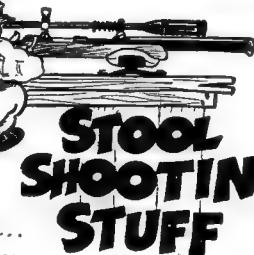
Horace Powers	.5685
John Myer	.5842
Bob Stultz	.5870
"Bud" Carden	.6000
Henry Barton	.6082

Small group at 100 yards award went to Bob Stultz for his .280" in match two and the 200 yard small group award went to "Bud" Carden for his .820" in match seven. There were a total of ten shooters present.

Capt. Rick Hornbeck

Dear Phil:

This letter is getting to you a little late, I know, but I thought I might best delay it a little and take a few paragraphs for comments on the NRA Convention at Washington. I threatened to go a good many years and I can see now that I have missed some pleasant occasions. Washington is the city where I was born but I find that although I visited it frequently the changes in recent years have been so great that the resemblance of Washington of today to the days of my earlier visits is prac-



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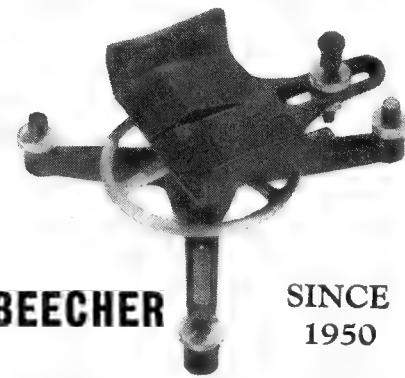
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tically non-existent. Merrie and I drove down and visited in Arlington with some very favorite former Boston friends.

I had expected to run into a number of friends, but as I stepped out of the car at the portico of the Sheraton Park, I heard a chuckle and looked around to see Bob Stinehour relaxing on one of the porch chairs and as pleased with himself as a Senator who had just been reelected. Before the day was over, we had enough benchrest shooters for a good sized relay. There may have been some that I missed but in one gathering we had Clyde Hart, Doc Garcelon, Mike and Olive Walker, Bob Chatfield-Taylor, John Amber, Olin Davis, Joe Kelley, Homer Culver, Jack McAvoy, Jim Perry, Ray Speer, Bud Waite and the good friend to all of us, Frank Snow.

I can't say that I got much out of the business sessions because I really didn't give them much time but I did spend a lot of time in the exhibitors area where it seemed to me that Bud Waite had things pretty well organized. There was quite a proportion of space occupied by the gang that are collectors and as much as I admired many of the things which they had, I thought the better part of wisdom was to continue to stay out of that field.

During the forties, I had a nice Mannlicher stocked Model 98 Mauser which I sent to Fred Huntington to be rebarreled. Although it was carefully boxed, through some manner best known to the express company perhaps, it arrived at the home of RCBS with the stock hopelessly broken. From the letters written back and forth to Fred at that time, and later, I had formed a very nice picture of him. One often does this throughout the years but this was one of the occasions where the image in my mind turned out to be exactly as I found Fred to be in person, a real fine guy, mild, capable and obviously dedicated to giving the shooters quality in all of his products and service. His boy was much like him and the almost continuous large group of customers around his booth was clearly a tribute to a couple of men who knew their business and working hard so that others could enjoy their products.

As a matter of fact, I think that the representatives at most of the booths as well as the thousands of visitors and NRA members whom I saw during those days were pretty sound and substantial citizens and the continued right to have and use arms will clearly not be endangered in the hands of such people. Let us not be too apathetic about it, though, because the insidious acts of those who would take such rights away from us are heavily garnished with misguided law officials, politicians, do-gooders and starry eyed dreamers who do

not seem to recognize that the necessity to fight for what our country stands for could be closer than we think to our threshold. Familiarity with weapons could well be essential for survival regardless of the initial warlike acts but it is also of great importance as a healthy and enjoyable recreation. Today, and at this very moment, we are faced with an effort and a series of silly regulations which, if they are not curbed and corrected, will probably make almost every one of you readers, an outlaw.

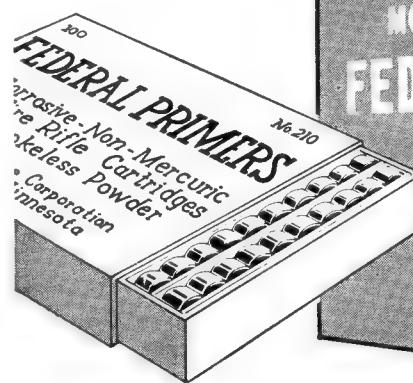
I am specifically referring to the innocuous and stupid regulations that are cropping up everywhere so regularly and methodically that I sometimes wonder if the use of small lots of powder as part of they are communist inspired, pertaining to our reloading operations. I have heard the nonsense talked about the big ammunition companies being behind these powder restricting laws. I think there is no basis for this rumor and whispering campaign and it behooves all of us whether we be giant manufacturers or basement reloaders to actively safeguard our pleasures of shooting as well as the future freedom of our country.

I hadn't been in the hotel long before I ran into our good friend and capable benchrest shooting enthusiast and keen competitor, Ray Speer. The fine products which his company produces are well recognized and, my reader friend, if you have not already added a copy of their reloading manual #5 to your gun book library or workbench, you had better consider doing so very carefully. It is a fine and authentic reference manual and will get you out of trouble and keep you enjoying your game with a great factor of safety. This book is not just a dull group of statistics and advertising plugs but one which I think is almost a "must."

As you may well imagine, next to the Speer products booth was the CCI booth, and there again I found a fine and capable fellow with whom I have had frequent correspondence, answering to the name of George Fairchild. I don't know how many of the giant forward steps of Cascade Cartridge, Inc. can be linked to George's efforts as I fully realize that no successful industry comes into being by one person alone but I do feel that the reloaders have in George and CCI staunch friends who will continue to keep us supplied with the new and better. There soon will be some interesting new primer news as well as news of other wanted products. I presume that many of you have seen those new plastic pistol bullets that are interesting and accurate, reusable after you catch them in a suitable curtain, after having shot them with only a primed case. Following the war, we heard lots about parlor rifles but who would have thought that pistol shooting with reclaimable bullets would become the order of the evening in an American household. The fact that these cases don't have to be resized and the absence of powder takes the mess of reloading to the upper floors without endangering your relationship with the lady of the house. Don't let familiarity breed contempt. These little red plastic wad cutter shaped pellets can injure both persons and property. Great grandfather may be safely out of harm's way but his portrait above the mantel piece might need more freshening up than those oil colors are used to if he is bopped in the temple from a shooter across the room.

Even before the weather warmed up, Bob Chatfield Taylor had been frequently at my range to test out his new .375 on an open neck 338 case with which he hopes to shoot a tiger in India. Bob's not the kind of a guy who just wants to get the bullet (Continued on Page Fourteen)

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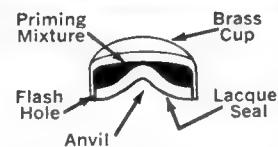
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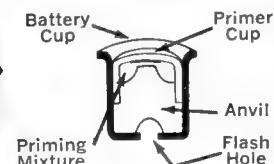
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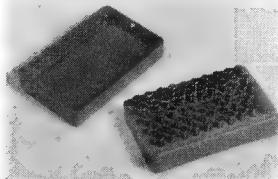
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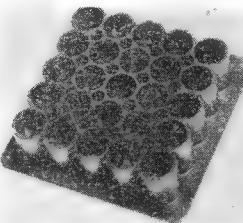
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Dealers Inquire

Stool Shootin Stuff

(Continued from Page Thirteen)

from him to the game—he wants it to shoot exactly at his aiming spot and I must say that for a fellow who loves big caliber guns, he is very meticulous whether the shot be long or short and the point of aim through his Bear Cub scope must be carefully matched by the placement of the bullet to satisfy him. This, I know by many observations and I think I once told you about his shooting a group with his 458 that would do credit to a benchrest. Bob's enthusiasm at the moment is well understood because he and John Amber will soon be leaving on the tiger hunt together that will culminate in a round-the-world trip. It was natural that I should find them together in earnest conversation with Bill Ruger. We will miss John at some of the early shoots but after publishing that last issue of Gun Digest which was so well done that it couldn't help being successful, he is entitled to a tiger hunt or two.

The Remington booth was continually busy. I had expected to see it strewn with 40X centerfires but I guess they are selling so many of them that the supply for exhibition purposes was limited; however, Mike Walker was there and it looked to me like an awful lot of people were standing around and asking him what to shoot with and how to do it, and particularly how to do it as effectively as he so often does. The thing I like about Mike is that he is never boastful but always helpful and many of us in the benchrest game owe our prowess to his suggestions and example.

I had seen some good color photos of Reinhart Fajen taken at Les and Martie Bowman's ranch so I could have recognized him even if I hadn't met him at his booth. He and I, of course, have done business throughout the years and at his booth I found a very attractive and different stock model that I think very highly of as a varmint rifle stock. It is called the Regent and the generously wide slightly beaver tail fore end can be well adapted for shooting off a rest. There is very little drop to the stock which does not have the Monte Carlo hump which some people object to as spoiling the stock line. The pistol grip is long and slender and when combined with the cheek piece, it rolls over on top of the stock to make your trigger hand feel very comfortable whether you be a thumb upper or a thumb downer. I don't recall the price but I doubt very much if it differs much from their other standard semi-inletted forms such as the Marksman which I am very fond of also as a light varmint or sporter rifle.

When we shooters tally up our friends present and past, many of us rate high on the list, John Unertl and it was good to see Mrs. Unertl at the scope booth carrying on John's policy of good cheer and good will to all just as she often did at the shoots while John went down to his relay or visit-

ing among the loading benches.

Warren Page showed some of his excellent movies which pleased everybody and he seemed to be constantly in circulation as he talked the good gun sense one usually hears from him. He is always an interesting fellow to talk to and there are frequently so many things he can speak of that he can't put into writing because of the hazard of being misunderstood or accused of showing undue favoritism in one direction or another. As you can well see, and equal accent to everybody's product this business of having to give equal time requires finesse.

I first ran into Frank Snow at the Sierra booth where he was so busy I had little chance to talk to him but I count myself doubly lucky because of the two enjoyable occasions when we sat down to lunch together. There we could talk leisurely of the benchrest game, the great guys in it, of some of the mistakes we made and, of course, much conversation on bullets and bullet making. Many who do not know Frank do not realize how extensive his experience in shooting has been and how well informed he keeps himself on current shooting subjects. I learned from Frank that Ferris Pindell had been unhappy with California life and had returned to Indiana in spite of Frank's assurances that a little longer stay would convince him that California and Sierra would soon seem homelike to him. Frank and I discussed in considerable detail the jacket problem and I am fully convinced that we get as few bargains among our frequent purchases as we do when we buy jackets. The amount of detail which goes into them and the tolerances which they are held to would probably make them cost dollars if they were being charged to a missile manufacturer of the orbital type instead of we who shoot little missiles from a big gun over a bench attached to terra firma. Frank is the kind of a fellow who will see that his firm gives us the best products they can possibly make and he frankly says that it is now not in the cards to give us jackets with a plus or minus nothing runout in wall thickness. Even though paying top prices for sheet copper material, he cannot buy it to such jackets frequently reach us in the manufactured stage. Paul Gottschall's system of close tolerances in the flat stage as the turning out the inside of the jackets undoubtedly has merit but the system of care-
important to those who do not have ma-
tifully measuring the jackets will still remain chines and would still make and shoot bul-
lets of top accuracy.

While I am talking about bullets, I can't forget the long and serious conversations that were so pleasant with Joyce Hornady. I had often used his bullets to shoot at game and if you'll but weigh and check a box of them, you, too, will note how uniform they run. In Mr. Hornaday, I found a man that knew from A to Z every detail about his product, machines and

manufacturing techniques. He uses machines and processes that are specially developed, and I admire the new and better approaches that he has applied to making an outstanding product. Make no mistake about it, that secant-ogive bullet has some very important ballistic advantages and the fact that he rolls the cannulares into the jackets before they are assembled with—and please note carefully—expanding up techniques. I liked the fellow immensely and would have come away from Washington feeling that my expenses were well justified in just having met him alone.

Being a Bear Cub scope enthusiast of many long years, I couldn't pass their booth without talking to Mr. Hilliard and carefully examining the new Bear Cub Variable. The inside of an exhibition hall is not the place to judge the merits of a scope from a company that is new to the market but for long years Redfield has been a much respected manufacturer of fine products and when they started with such a good product as the Bear Cub scope and further added to its excellence, we recognize how great our country is in progressive lines. For those who have the will and the character, there is no product that cannot be made better and so we see today the new Bear Cubs coming out with change of magnification features in the objective field, yet the reticle image is reduced way out yonder where we do not want our target obscured.

At the rate at which purchasers of Remington 40X center fire rifles are calling for Spintru bullets, I am led to believe that a lot of carefully tested rifles are passing out of the Remington hands and to enthusiastic shooters. It is complimentary to Spintru bullets and I was amused as I dallied at the Pacific Gunsight booth to hear Bob Deitemeyer express a yen for a supply of them. I had looked over Pacific's new DL-250 Shot shell reloader with considerable enthusiasm and had watched the demonstration of cold swaging half jacketed pistol bullets in some of the new improved presses. The old Type C has been redesigned but the unit that caught my eye was ruggedly built and contained carefully aligned and threaded ports for three different dies. This can be a decided advantage for the pistol loader and the hand loader who uses three or more different rifle calibers. Some of the multiple die presses that I have seen have had so much play in them that a user cannot ever achieve much uniformity or accuracy, but this one is different. The rams are double the length of the ordinary type and they are well fitted and guided for far greater than the usual length. The power is terrific and it was no chore at all to cold swage three pistol bullets at once or full length reswage .308 cases from once fired 30-06 brass with but one stroke of the lever. I found Deitemeyer to be a power house of enthusiasm and ability and his current subject when I talked to him was benchrest and varmint shooting and his interest in marketing a set of dies which when put in the three position press would turn out one complete bullet for each stroke of the operating lever. Doc Garcelon and I were together when we talked with him and we stressed the importance of quality dies if good bullet making was the objective. Certainly there is no room for poor bullets and I found that Bob Deitemeyer was well oriented in the direction of quality. He recognizes well enough that the question of price must be taken into consideration when marketing a product but tribution. I predict that he will be well his approach is from the angle of wide disliked personally as he orbits with the benchrest and varmint shooting crowd and I look forward to his new products for we shooters who shall be in relays with him.

Phil, I have received some nice letters from fellows who have written to me when they heard that Jock passed away. This occurred about the time I was reading your paragraphs about the passing away of Ad Topperwein and Colonel Hession and I couldn't help but think of what a veteran my good old dog, Jock, was, too. The benchrest matches which he went to for some 14 years would be numbered in the hundreds and the days he went out with me to shoot at the bench would reach many thousands. Almost to his last days, he was an enthusiastic kabitzer, and the energy which he expended as he ran above my target backstop as I would shoot was a thing to admire, respect and enjoy. In his younger days, whenever I would stop to reload, tinker or make a few records, he would run back to me, stop, look up and waggle his tail as if to ask if there was anything to do to help get the show on the road again so the shooting would start. Often when I would break off at noon and go back to the house for lunch, I might be tied up by something for most of the afternoon but I doubt if Jock ever stirred from his guarding position as he lay under the bench on which the guns and equipment were resting. On some occasions, it was well after dark before I returned, but Jock would be there, arising and wagging his tail as I approached. No man could have a better dog or one who was more of a gentleman, yet the apple of his eye, just as it is for me, was Merrie, and we are both at this stage missing him immensely.

As I write this, I think in sympathy of Clyde Yockey who since I saw him only a few short months ago has lost his wife and partner. Mrs. Yockey was known to many of us and her friendly and cheery manner endeared her to all. We shall indeed miss her and know how deep Clyde's grief must be to have lost such an important part of one's life.

Cordially yours,
Ernest Stuhlschuter

Ernest Stuhlschuter

P. S. It is not too late to fill out your questionnaire if you have not already done it. Dig it out from last month's issue and get it in the mail today.

A NEW INTERESTING TARGET and invitation to try it from Crawford H. Hollidge

Years ago, we used to have several shoots a year on Cape Cod at my range but after even the small shoots got so sophisticated that they had to have moving backing strips and the Spring and Summer season got so packed with shooting dates, I abandoned the effort. I have missed the shooters and they have missed coming to Cape Cod.

A target which incorporates a trial aiming point in the center for sighting shots and the silhouette of a fly in five irregularly spaced locations around it on the 8" X 8" target card, and the game it was designed for seems ideal for a backyard range anywhere in the country because to have even summit class shooting, a moving backer strip is not required and the complicated measuring devices and statistical sections are unnecessary also. The activity is called "Flybustin'" and the game is but a change of menu from regular group shooting and places a premium on the fine rifles, superior ammo, tight holding and marksmanship.

Only five minutes are allowed for a maximum of seven shots, one for each fly and two for sighting or testing. The flies

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own both the NEW Lyman-Ohaus "505" Scale and the all-time favorite Lyman #55 Powder Measure . . . a terrific combination for super-fast, super-sure reloading!

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mounts on shelf, bench or directly on turret type presses . . . loads cartridges with uniform, reliable precision at top speed. Calibrated slides and micrometer screws permit wide range of adjustment with all powders. (Price . . . \$16.00). You won't find a better all-around powder measure under any other label. See your dealer or write for 1961 Lyman Catalog #43.

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SHOTGUN CHOKES
RELOADING TOOLS

LYMAN-OHAUS "505" SCALE:
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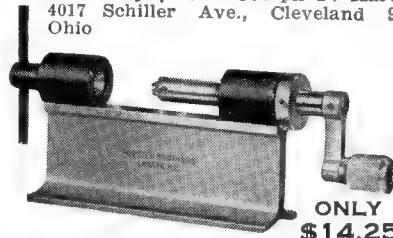
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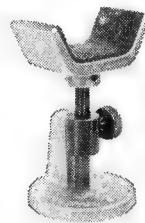
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are intentionally irregularly spaced and headed to make the game more challenging. A shot on the body or head forward of the waistline of the fly counts for five, and is called a "forender." Similarly, a "rearend" is a shot in back of the waistline and counts for four. A "winger" counts for three, and a "legger" for two. If your shot is nearer to any point of the silhouette than the outside neck diameter of your cartridge case, you score one, which is called a "spooker," and if beyond that diameter, you get a goose-egg because it is a "whiffer." A "header" must cut that area and the greater number will break ties. Shots must be fired consecutively clockwise, starting with the 12:30 o'clock fly.

The premier shoot for this new target will be at my Stepping Stones range, Saturday, May 5th and Sunday, May 6th. Adequate camping and parking space is available, and motels are nearby. All are welcome. Will you please let us know if we can expect you so that we may estimate

snack bar requirements. Mail address is: Crawford H. Hollidge, Cotuit Road, Marstons Mills, Mass., and the telephone No. is Hyannis, GArden 8-4132. Stepping Stones range is on Route 149 which is a connecting link between two main Cape highways, Routes 6 and 28. Look for mail box marked "Hollidge" about two miles on west side of road. Bear left at all drives to range.

For the shooting; ten targets form a string, and the highest score is the champ. Strings will be fired, starting Saturday at 1 P. M. and Sunday starting at 9 A. M. The range fee will be \$1.00 per day, and 25¢ will be charged for each target, with a refund of 5¢ per dead fly (forender or reender). Range 100 yards.

Smallbore rifles are authorized and may be shot from rest or any position. Competition is open to any caliber rifle. A rifle equipped with 10X or less scope is en-
(Continued on Page Sixteen)

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WORLD'S FINEST PRODUCTION MADE RIFLE BARREL

The quality of DOUGLAS barrels has been proven many times on the target and in the field, both big game and varmint shooting. These barrels hold many records on the target, in bench rest, big bore, and small bore target work. We receive new reports all the time, attesting to their excellence, from the target shooter and hunter. We feel that we are making the finest production made rifle barrel available in the world today. Further, our wide range of sizes and weights, variety of calibers, deliveries, prices and discounts to gunsmiths, add up to a service that is not available from any other barrel maker in the land.

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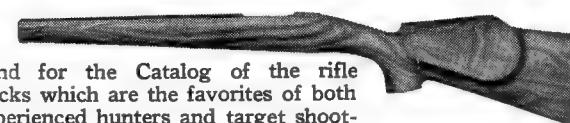
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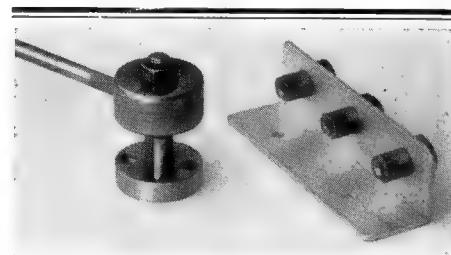
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Send for the Catalog of the rifle stocks which are the favorites of both experienced hunters and target shooters.



A New Interesting Target

(Continued from Page Fifteen)

titled to a five point handicap and dead flies will be refunded at double value (10¢ per fly).

(Editors note: I have seen this new target and it appeals to me as one which can offer real "fun shooting" as well as being a real challenge to marksmanship and excellent rifle-ammo-sights accuracy. The foregoing details of the match conditions plus a report of the shoot with photos (and "bugs" that may show up and need correction) may serve as a pattern for others who may be interested in trying this promising "Flybustin" shooting game.)

About The Powley Computer

(Continued from Page Six)

the Sabre falls to the right of 4227, meaning that a powder just a little faster than this would be optimum. This exactly confirms our lengthy chronograph test results, H240 (a Hodgdon salvaged lot of 2400 but faster) does very well in cases of this size. Several other such comparisons gave equally credible results. It can usually be expected to come within about 5% of the actual answer.

Now, good as this is, it does have limi-

itations. It cannot, of course, take into account variations from lot to lot of components, differences between rifles, their chambers or other indefinite factors. These can cause results to vary both as to velocity and pressure developed from the calculated value. Neither does the Powley Computer provide for estimating the velocity of reduced charges. This can be approximated by finding the Ratio of Charge to Bullet Weight for the reduced charge you have in mind, and using this to compute velocity. While it indicates an IMR powder selection for best results, it doesn't provide information about what results may be obtained with other powders. Thus it will not replace the chronograph, nor is it intended to do so.

As the instruction manual clearly states, the computer indicates maximum loads, asserting that these high density maximum loads will be more uniform, and that this is important to accuracy. We will not explore that point, since it is not fundamental to its operation, but the fact that these are maximum loads should be noted. These are calculated to be within normal pressure limits, but could in many cases be too hot for a particular gun. Therefore use reasonable caution before loading up a lot of cartridges. It is also

NEW ITEMS FROM S. A. S.

Precision Lead Wire Cutter with set of Draw Dies—Custom Made. Total price \$20. Write for full details or order on money back guarantee. Send sample of lead wire or exact maximum diameter of your wire.

DeLux Bullet Swage Dies complete for one caliber including special ram and adaptor. \$23.45. Extra dies, any caliber, \$15.00. Accessory Die for making lead tip bullets, \$3.95. Core Swage Dies (send sample of jacket if available), \$7.50.

DeLux Dies for Swag-O-Matic complete for one caliber including adaptor (special ram not needed), \$22.50.

Special Ejector Frame for all presses (not needed for Swag-O-Matic), \$7.50.

In ordering dies give all details, send sample jackets if available, anything you might think will help in supplying you the best dies possible. Be sure to state make and model of press.

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possible to have an error in the computation. Try a charge 10% below prediction, and work up, in usual reloading procedure.

The Powley computer is based upon the following valid assumptions:

All IMR powders are of the same composition and contain the same amount of energy per grain of weight.

All bullets require the same amount of energy in proportion to their weight to accelerate them to a given velocity.

A gun works as a free piston internal combustion engine, and the efficiency is independent of the bore.

You will note in velocity estimation that for a given ratio of charge to bullet weight, regardless of caliber or case shape, the same degree of gas expansion develops the same bullet velocity. The only effect of increasing bullet sectional density, a factor involving bore, is to dictate a larger grained, slower burning rate powder.

The computer, then, calculates from the water capacity of the cartridge case that weight of an IMR powder needed for the desired .86 loading density. Matching bullet weight to the third scale, simply divides powder weight by bullet weight, giving ratio of charge to bullet weights. This is the primary factor determining the velocity reading on this computer.

The secondary one is expansion ratio, the number of times the gases generated in the cartridge can expand in pushing the bullet down the barrel. This is figured with another set of scales, and determines at which window the velocity prediction will be read, each such window showing, in effect, what a shorter or longer barrel would have produced. The volume of the case, and its size relation to the bore, have entered this computation, but its shape or proportions have not. The powder type has affected the result only to the extent that a fixed maximum pressure has been assumed, and, for the result to be valid, must be chosen to satisfy this condition.

While the powder to be used enters the velocity determination indirectly, the proper choice is of vital importance. These results being based upon peak allowable pressures, even though conservative, means that substituting a faster powder at the same charge weight could produce disastrous forces. Checking a few of the possible combinations that could occur will show you that this must be watched. The instructions on this point should be read carefully.

For the guy with a few odd rifles for which not enough loading data is available, or for the dream experimenter, the Powley Computer is the answer. It will provide sound approximations of the results to be expected from almost any combination of case size and bullet weight regardless of caliber. If you have in mind necking a 38-40 to a something-or-other, check it on a Powley Computer before you stir from that cozy seat or invest a buck in hardware. If you must go farther, then get next to a good chronograph.

Here's how the Powley Computer handled two real wildcats:

First the .22 Sabre in a 24" barrel rifle: 20.5 grain case capacity set opposite 4227 (top of rule) Computer reads: 16.4 grains powder charge

With rule at same setting opposite 45 on the 4th scale read .365, the Ratio of Charge to Bullet Weight. Finding .128, Sectional Density for 45 gr. bullet (back of rule, table), set this opposite .365, using 5th and 6th scales. A powder a bit faster than 4227 is indicated.

Set the 24" bbl. leng. opposite .22, the

caliber, on the 8th and 9th scales, and on the 10th scale opposite 20.5 case capacity read 12.5, the Expansion Ratio.

Using these values, .365 Charge Ratio and 12.5 Expansion, the back of the rule gives a velocity figure of:

3140 F.p.s. (interpolating between .36 and .37 settings)

3160 F.p.s. is the actual chronograph average for 16.5 grains of 4227 with the 45 grain bullet.

Second the .219 Thor fired from a revolver, 7" barrel:

21.5 grain case capacity opposite 4227 (top of rule) Computer reads: 17.2 grains powder charge.

This being a revolver, we had found that pressures were high enough at 16.7 grains, so we drop to this value for our calculation, by setting 16.7 at arrow 1.

For a 35 grain bullet we can find .46 as Ratio of Charge to bullet weight; note that computer doesn't have 35 grain calibrated on scale, although sectional density for this bullet is in table on back. This should be corrected.

Using scales 5 and 6, a powder faster than 4227 is indicated.

Setting the 7" barrel length opposite .22, the caliber, we find the Expansion Ratio to be 4.15.

Setting Ratio of Charge at .45, nearest setting to .46, and reading at 4 for Expansion Ratio, the computer shows:

2730 F.p.s. predicted muzzle velocity. But this is a revolver. Our best guess is that it is 93% efficient, 7% being lost at the gap between barrel and cylinder.*

93% of 2730 gives us 2535 F.p.s. corrected velocity.

2465 F.p.s. was the actual average chronograph figure for this gun.

*The 93% revolver efficiency was not a value picked to make the answer come out, but was based on tests made in 1961 to find what this loss in revolvers amounts to. The value for this gun is most likely 92 to 94 percent.

Those are two that nobody could look up in the book, and the computer handled them nicely. It won't always be that close, we are sure, but it will get you in the ball park with any of them, long or short, standard or odd.

Tournament Circuit (Continued from Page Nine)

August Westergaard was runner-up in the championship aggregate with 783. He was 2nd in the prone match, 8th in the sitting match with 198, 2nd in the kneeling match with 198 and 3rd in the standing match with 187.

William P. Musser, Royal, Iowa, was 2nd in the standing match with 190 and 3rd in the grand aggregate with 781. William Linvill, Griswold, Iowa, had high expert aggregate of 771; Wesley Peyton, Onawa, Iowa, high sharpshooter with 765 and Dean H. Berk, Omaha, Nebraska, high marksman with 749.

Expert Jack Jennings, Omaha, Nebr., won the sitting match with a 200-15x and sharpshooter Denzil Peyton, Onawa, won the kneeling match with a 199.

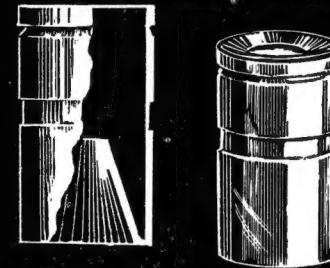
NORTH DAKOTA PISTOL CHAMPIONSHIP

D. M. Doig of Brandon, Manitoba, with a score of 1666, was overall aggregate winner at the North Dakota Gallery Pistol Championship tournament, fired at the Valley City Rifle and Pistol Club range on March 18th.

(Continued on Page Eighteen)

norma

.38 special match wadcutter



A SUPREMELY ACCURATE MATCH BULLET!

Strong statement but we mean it. You won't find another bullet . . . anywhere . . . that compares with this one for match accuracy! Here are four reasons why the Norma .38 Sp. Match Wadcutter can make the V-ring your second home:

UNIQUE SHAPE—Specially designed for perfect balance and stability. "Hollow-Tail" construction allows expansion that custom-fits all bores . . . even oversize ones!

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PROPER WEIGHT—148 grains. Proved by years of actual match shooting as the weight for super wadcutter accuracy.

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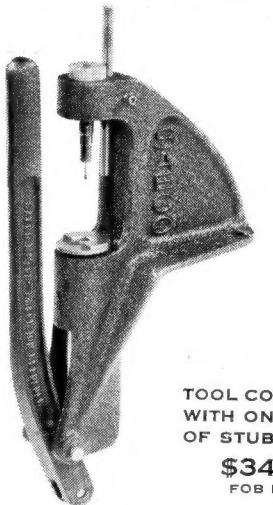
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of the matches.

Members of the Hampden Rifle and Pistol Club provided most of the match officials and range help. The 67 competitors and their families enjoyed the improved facilities of a new clubhouse, a new oil heating system and the snack bar.

M. F. Dunphy

SOUTH PACIFIC SMALLBORE REGIONAL

The South Pacific Smallbore Rifle Regional tournament conducted by the Fresno Rifle and Pistol Club at Fresno, California, March 31 and April 1 had an entry of 63 competitors. Temperature was 75 degrees with a very light, changeable breeze.

James Hill, USMC, San Diego, Calif., made a clean sweep of the aggregates, winning the iron sight aggregate with a score of 1596-115x, the any sight with 1599-131x and the Regional aggregate with 3195-246x.

Hill didn't have any run-away win, however. In the iron sight aggregate Joe Specht of Fresno was only 5 X's behind with 1596-110x and Kristin Duncan (wife of USMC Warrant Officer Emmett Duncan) of San Diego was third with 1595-104.

In the any sight aggregate William Grater of Oxnard was within two X's of Hill with his 1599-129x score, Bob Perkins of Fresno had 1597-135x and Dick Burkhardt 1597-124x.

In the grand aggregate, Joe Specht held his second place spot with 3192-224x and Kristin Duncan held onto third place with 3191-233x. Bob Perkins was fourth with 3190-241x; David Boyd, USMC, San Diego took high Service award with his fifth place 3189-220 and Bill Grater took the fifth place open award with his 3187-246x.

High expert was Lt. Col. Harold Bourgois, Castle AFB, Calif., 3178; high sharpshooter, Clyde Morgan, Vandenburg AFB, 3156; high marksman, Glen Johnson, Ripon, Calif., 3132 and high unclassified, David Deyell, N. Hollywood, 3149.

Hill shot his Anschutz rifle. Specht used a 52 Winchester with an Archie Bell stock and Henry Wright trigger. Bob Perkins' rifle had a Henry Wright action, trigger and stock with a Pfeifer stainless steel barrel installed by Henry Wright.

Tournament Circuit

(Continued from Page Seventeen)

Robert G. Hodgson, Fargo, N. D., won the North Dakota resident championship with a score of 1649. High expert was Marvin Roberts, Vermillion, S. D. with 1627; high sharpshooter, Merlin Geberding, Ellsworth AFB, S. D., 1575; high marksman, Keith Hurst, Brandon, Man., 1461; high unclassified, James Swanke of the Valley City Club, 1470.

Sixty-six shooters from throughout the area were registered for the match, an increase of nearly twenty over the 1961 registration. The aggregate included matches for the three guns; .22, center fire and .45 cal.

MAINE GALLERY PISTOL CHAMPIONSHIP

Fernand LaPointe of the St. Foy, Province of Quebec Police Department closed fast in the final match of the Maine Gallery Pistol Championship tournament to nose out Coast Guardsman Erwin A. Chase of Rockland, Maine by one point—847 to 846. Chase, the new Maine State Champion, won the Camp Perry, slow, timed and rapid fire matches, but the persistent LaPointe had a HOT gallery match course score. Defending champion Dr. Elmer Pelletier of Fort Kent took third open spot with 839.

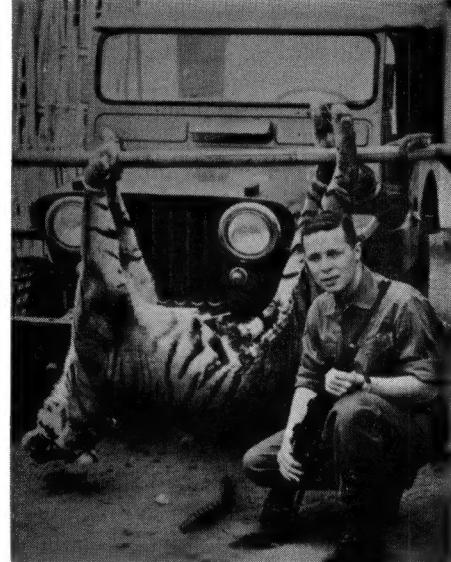
The tournament was fired on the Hampden Rifle and Pistol Club range near Bangor on March 18th.

Taking high master award was State Trooper John Pinkham, Litchfield; high expert, Capt. G. P. O'Malley, Dow AFB; sharpshooter, State Trooper Rupert Johnson, Bucksport; marksman, State Trooper Frank Tilley, Caribou; unclassified, Don Furdy, Gardiner.

The Fort Kent Rifle and Pistol club team won the team match with a 1096 score and were followed by Dow AFB, Blue Hill Rifle and Pistol Club, Otis AFB and Coast Guard.

A special handicap match found Dr. Paul Beegel, Auburn, Dalton Burris, Otis AFB and J. A. Rice, U. S. Coast Guard taking home merchandise. Group winners were awarded fishing items.

Revere silver, custom engraved trophies, Blackington medals and merchandise were promptly awarded on completion



ANAK MENDJANGAN

Djakarta, Indonesia.—Four days tiger hunting in South Sumatra and no luck, reported Kent Crane of the U. S. Embassy in Indonesia. Then, more or less in desperation, Crane decided to try a predator call. His Indonesian friends had been greatly attracted by this call and insisted on squeaking it at every village. Invariably the surprised natives would say, "Anak

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Classified type ads; no display. Rates: — 10¢ per word per insertion, prepaid. Minimum charge \$1.00. Closing date for ads is the last Saturday of the month preceding publication.

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FRIENDS: Please do not write about Bullet Jacket Boring. Results and further experiments will be published in Precision Shooting. Shooting is 100% hobby for me and I am not connected with gun business in any commercial way. Paul Gottschall

Mendjangan," or baby Sambar deer.

Although boar, wildcats and luaks had been called in, there had never been a case of a hunter using a predator call to bring in a wise old tiger.

An Unnerving Effect

Within thirty minutes after calling, a troop of monkeys set up a screeching ravenous indicating that a dangerous animal was close by. Three loud roars from the gloom of the jungle confirmed the presence of the tiger. Unable to see him, Crane was on pins and needles as he continued calling softly hoping that the tiger would come in before darkness. On his prangon tree platform it was impossible to see the goat that had been staked out or the dead monkey that had been tied to a tree behind the platform.

Be Calm — He's Behind You

Straining to see the goat, gun ready, Crane suddenly heard something pulling at the dead monkey behind him. Trying to remain calm and turn around silently for fear of spooking the tiger, Crane switched on his light and there was the tiger with the dead monkey in his mouth. The tiger glowered at the light and hesitated just long enough for Crane to place a well-directed 30.06 bullet in his shoulder. The one shot was enough and a point was proved. You can call in a tiger.

Each year predator calling is becoming more popular—not just with hunters, but with photographers, conservationists, nature groups, scouts, etc. There are no closed seasons. Even the amateur can call in fox, coyotes, bobcats, wolves, 'coons, etc. Try it. It's an experience you'll never forget—And if there are tigers around, be a little careful, remember, when you call you are the hunted.



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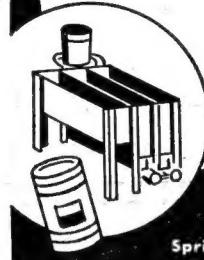
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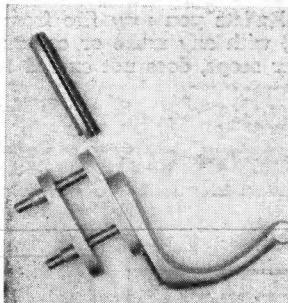
FOR THE SHOOTER BY A SHOOTER



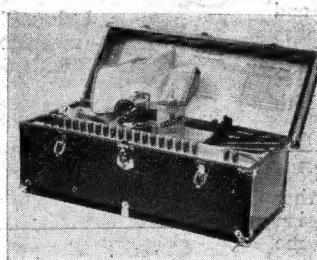
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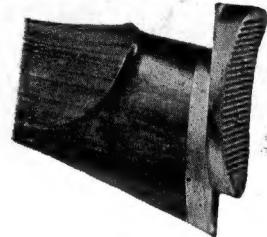
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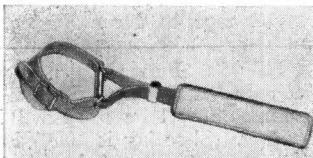
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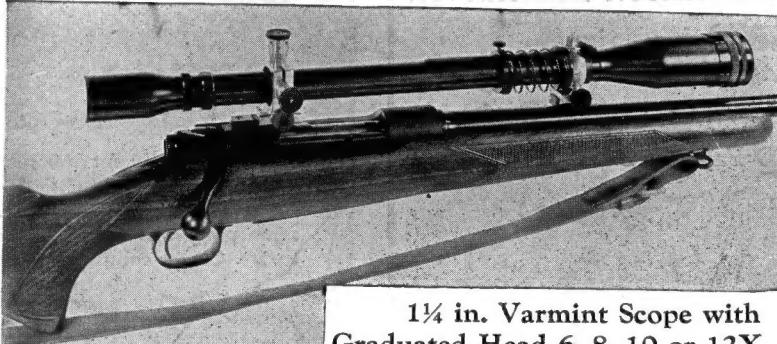
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